Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Navy

Date: March 2014

Appropriation/Budget Activity

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0604329N I Small Diameter Bomb (SDB)

| COST (\$ in Millions)           | Prior<br>Years | FY 2013 | FY 2014 | FY 2015<br>Base | FY 2015<br>OCO <sup>#</sup> | FY 2015<br>Total | FY 2016 | FY 2017 | FY 2018 | FY 2019 | Cost To<br>Complete | Total<br>Cost |
|---------------------------------|----------------|---------|---------|-----------------|-----------------------------|------------------|---------|---------|---------|---------|---------------------|---------------|
| Total Program Element           | 114.701        | 28.883  | 24.925  | 71.849          | -                           | 71.849           | 85.349  | 107.275 | 115.170 | 133.521 | Continuing          | Continuing    |
| 1663: SBD II Integration        | 0.000          | -       | -       | 29.000          | -                           | 29.000           | 32.000  | 35.000  | 47.000  | 62.000  | Continuing          | Continuing    |
| 3072: Small Diameter Bomb (SDB) | 108.283        | 16.577  | 16.565  | 28.916          | -                           | 28.916           | 41.580  | 63.439  | 63.308  | 67.887  | 62.244              | 468.799       |
| 3082: <i>JMM BRU</i>            | 6.418          | 12.306  | 8.360   | 13.933          | -                           | 13.933           | 11.769  | 8.836   | 4.862   | 3.634   | 1.461               | 71.579        |

MDAP/MAIS Code: 439

## A. Mission Description and Budget Item Justification

Small Diameter Bomb Increment II (SDB II) is a joint program, with the Air Force (AF) as the lead service, which provides the warfighter a capability to attack mobile targets in all weather from Stand-Off range. SDB II addresses the following warfighter requirements: attack mobile targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and provides a net-centric operations capability. The threshold aircraft for the AF is the F-15E and the threshold aircraft for the Department of Navy are the F-35B and F-35C. SDB II will be compatible with the Joint Miniature Munitions Bomb Rack Unit (JMM BRU) (BRU-61A/A).

This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

| B. Program Change Summary (\$ in Millions)            | FY 2013 | FY 2014 | FY 2015 Base | FY 2015 OCO | FY 2015 Total |
|---|---------|---------|--------------|-------------|---------------|
| Previous President's Budget                           | 31.064  | 46.007  | 53.481       | -           | 53.481        |
| Current President's Budget                            | 28.883  | 24.925  | 71.849       | -           | 71.849        |
| Total Adjustments                                     | -2.181  | -21.082 | 18.368       | -           | 18.368        |
| <ul> <li>Congressional General Reductions</li> </ul>  | -       | _       |              |             |               |
| <ul> <li>Congressional Directed Reductions</li> </ul> | -       | -21.082 |              |             |               |
| <ul> <li>Congressional Rescissions</li> </ul>         | -       | -       |              |             |               |
| <ul> <li>Congressional Adds</li> </ul>                | -       | -       |              |             |               |
| <ul> <li>Congressional Directed Transfers</li> </ul>  | -       | -       |              |             |               |
| <ul> <li>Reprogrammings</li> </ul>                    | -       | -       |              |             |               |
| SBIR/STTR Transfer                                    | -0.626  | -       |              |             |               |
| Rate/Misc Adjustments                                 | 0.001   | -       | 18.368       | -           | 18.368        |

PE 0604329N: Small Diameter Bomb (SDB)

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<sup>&</sup>lt;sup>#</sup> The FY 2015 OCO Request will be submitted at a later date.

|  | ONOL        | AUGII ILD                             |  |                              |           |  |  |  |
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| chibit R-2, RDT&E Budget Item Justification: PB 2015 Navy  |             |                                       |  | Date: March 20               | 14        |  |  |  |
| ppropriation/Budget Activity<br>19: Research, Development, Test & Evaluation, Navy I BA 5: Sysevelopment & Demonstration (SDD) | tem PE      | Program Element<br>0604329N / Small L | t (Number/Name)<br>Diameter Bomb (SDB) | 3)                           |           |  |  |  |
| <ul> <li>Congressional General Reductions<br/>Adjustments</li> </ul>   | -1.556      | -                                     | -                                      | -                            | -         |  |  |  |
| Change Summary Explanation   |             |                                       |  |                              |           |  |  |  |
| Technical: FY14 funding was reduced due to congressional Integration, was funded to support the F/A-18 E/F SDB II int          |             |                                       | ed program decrease. (                 | Creation of project unit 166 | 3, SBD II |  |  |  |
| Schedule: Due to delays in testing, Milestone C has slipped  | to 4Q 2015. |                                       |  |                              |           |  |  |  |
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PE 0604329N: Small Diameter Bomb (SDB) Navy UNCLASSIFIED Page 2 of 22

| Exhibit R-2A, RDT&E Project Ju         | xhibit R-2A, RDT&E Project Justification: PB 2015 Navy |         |         |                 |                             |                                 |         |         |   |         |                     |               |  |  |
|--|--|---------|---------|-----------------|-----------------------------|---------------------------------|---------|---------|---|---------|---------------------|---------------|--|--|
| Appropriation/Budget Activity 1319 / 5 |  |         |         |                 | _                           | <b>am Elemen</b><br>29N / Small | •       | , ,     | l <b>umber/Name)</b><br>D <i>II Integration</i> |         |                     |               |  |  |
| COST (\$ in Millions)                  | Prior<br>Years   | FY 2013 | FY 2014 | FY 2015<br>Base | FY 2015<br>OCO <sup>#</sup> | FY 2015<br>Total                | FY 2016 | FY 2017 | FY 2018   | FY 2019 | Cost To<br>Complete | Total<br>Cost |  |  |
| 1663: SBD II Integration               | -  | -       | -       | 29.000          | -                           | 29.000                          | 32.000  | 35.000  | 47.000  | 62.000  | Continuing          | Continuing    |  |  |
| Quantity of RDT&E Articles             | 0.000  | -       | -       | -               | -                           | -                               | -       | -       | -   | -       |                     |               |  |  |

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

## A. Mission Description and Budget Item Justification

The F/A-18E/F Super Hornet is an objective platform for employment of the Small Diameter Bomb II (SDB II) and the Joint Miniature Munitions Bomb Rack Unit (JMM BRU). This program funds the hardware and software design, development, integration and testing required to successfully integrate SDB II/JMM BRU on the F/A-18E/F. IOC is scheduled for FY2019.

FY2014 funding resides in PE 0204136N, PU 1662 F/A-18 Improvement

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                                      | FY 2013 | FY 2014 | FY 2015 |
|---|---------|---------|---------|
| Title: F/A-18 Integration   | -       | -       | 29.000  |
| Articles:   | -       | -       | -       |
| FY 2013 Accomplishments:  |         |         |         |
| N/A   |         |         |         |
| FY 2014 Plans:  |         |         |         |
| N/A   |         |         |         |
| FY 2015 Plans:  |         |         |         |
| System specification and design efforts for SDB II and JMM BRU integration efforts. System configuration set software |         |         |         |
| development and integration.  |         |         |         |
| Accomplishments/Planned Programs Subtotals  | -       | -       | 29.000  |

# C. Other Program Funding Summary (\$ in Millions)

|                                     |         |         | FY 2015     | FY 2015 | FY 2015      |         |         |         |         | Cost Io         |                   |
|-------------------------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u>                    | FY 2013 | FY 2014 | <b>Base</b> | OCO     | <u>Total</u> | FY 2016 | FY 2017 | FY 2018 | FY 2019 | <b>Complete</b> | <b>Total Cost</b> |
| • 0204136N/1662: SBD II Integration | -       | 9.300   | -           | -       | -            | -       | -       | -       | -       | -               | 9.300             |

Remarks

Navy

## D. Acquisition Strategy

Integration of SDB II and the JMM BRU is software driven with ground and flight test requirements.

PE 0604329N: Small Diameter Bomb (SDB)

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy |   | Date: March 2014                                   |
|---|---|--|
| Appropriation/Budget Activity 1319 / 5                  | R-1 Program Element (Number/Name) PE 0604329N I Small Diameter Bomb (SDB) | Project (Number/Name)<br>1663 / SBD II Integration |
| E. Performance Metrics                                  |   |  |
| Earned value will be used for the contracted efforts.   |   |  |
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PE 0604329N: *Small Diameter Bomb (SDB)* Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

Project (Number/Name)

1319 / 5 PE 0604329N / Small Diameter Bomb

(SDB)

1663 I SBD II Integration

29.000

| Support (\$ in Millions               | s)                           |  |                | FY 2013 |               | FY:  | 2014          |        | 2015<br>ise   | FY 2 | 2015<br>CO    | FY 2015<br>Total |            |               |                                |
|---------------------------------------|------------------------------|--|----------------|---------|---------------|------|---------------|--------|---------------|------|---------------|------------------|------------|---------------|--------------------------------|
| Cost Category Item                    | Contract<br>Method<br>& Type | Performing<br>Activity & Location                                    | Prior<br>Years | Cost    | Award<br>Date | Cost | Award<br>Date | Cost   | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To    | Total<br>Cost | Target<br>Value of<br>Contract |
| OFP Development and Support           | SS/IDIQ                      | Boeing : St. Louis,<br>MO  | 0.000          | -       |               | -    |               | 5.086  | Nov 2014      | -    |               | 5.086            | 42.575     | 47.661        | 47.661                         |
| SDB II Prime Contractor<br>Support    | SS/IDIQ                      | Raytheon Missile<br>Systems : Tuscon,<br>AZ                          | 0.000          | -       |               | -    |               | 9.542  | Nov 2014      | -    |               | 9.542            | 16.449     | 25.991        | 25.991                         |
| JMM BRU Prime<br>Contractor Support   | SS/IDIQ                      | Raytheon Technical<br>Services Company,<br>LLC : Indianapolis,<br>IN | 0.000          | -       |               | -    |               | 8.606  | Nov 2014      | -    |               | 8.606            | 17.842     | 26.448        | 26.448                         |
| SDB II/JMM BRU<br>Integration Support | WR                           | NAWC AD : Patuxent River, MD   | 0.000          | -       |               | -    |               | 2.000  | Nov 2014      | -    |               | 2.000            | Continuing | Continuing    | Continuing                     |
| SDB II/JMM BRU Software Support       | WR                           | NAWC WD : China<br>Lake, CA  | 0.000          | -       |               | -    |               | 3.766  | Nov 2014      | -    |               | 3.766            | Continuing | Continuing    | Continuing                     |
|                                       |                              | Subtotal   | 0.000          | -       |               | -    |               | 29.000 |               | -    |               | 29.000           | -          | -             | -                              |

### Remarks

Funding for SDB II and JMM BRU Prime Contractors includes support of Super Hornet Integration efforts. FY2014 Support funding is included in PE0204136N, PU1662.

| Test and Evaluation (\$ in Millions) |                              |                                   | FY 2013        |      | FY 2          | 2014 |               | 2015<br>ase |               | 2015<br>CO | FY 2015<br>Total |                  |                     |               |                                |
|--------------------------------------|------------------------------|-----------------------------------|----------------|------|---------------|------|---------------|-------------|---------------|------------|------------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost | Award<br>Date | Cost | Award<br>Date | Cost        | Award<br>Date | Cost       | Award<br>Date    | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Developmental Test                   | WR                           | NAWC AD : Patuxent River, MD      | 0.000          | -    |               | -    |               | -           |               | -          |                  | -                | 31.461              | 31.461        | -                              |
| Operational Test                     | WR                           | NAWC WD : China<br>Lake, CA       | 0.000          | -    |               | -    |               | -           |               | -          |                  | -                | 14.041              | 14.041        | -                              |
|                                      |                              | Subtotal                          | 0.000          | -    |               | -    |               | -           |               | -          |                  | -                | 45.502              | 45.502        | -                              |
|                                      |                              |                                   | Prior<br>Years | FY 2 | 2013          | FY : | 2014          | 1           | 2015<br>ase   | FY 2       | 2015<br>CO       | FY 2015<br>Total | Cost To             | Total<br>Cost | Target<br>Value of<br>Contract |

PE 0604329N: Small Diameter Bomb (SDB)

**Project Cost Totals** 

0.000

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R-1 Line #107

29.000

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|--|-------------------|---------|---|---|----------------------|--|---------------------|---------------|------------------------------|--|--|
| Exhibit R-3, RDT&E Project Cost Analys | sis: PB 2015 Navy |         |   |   |                      | Date   | : March 20          | 14            |                              |  |  |
| Appropriation/Budget Activity 1319 / 5 |                   |         | R-1 Program E<br>PE 0604329N /<br>(SDB) | lement (Number/Na<br>Small Diameter Bon | ame) Proj<br>nb 1663 | Project (Number/Name)<br>1663 / SBD II Integration |                     |               |                              |  |  |
|  | Prior<br>Years    | FY 2013 | FY 2014                                 | FY 2015<br>Base                         | FY 2015<br>OCO       | FY 2015<br>Total                                   | Cost To<br>Complete | Total<br>Cost | Target<br>Value o<br>Contrac |  |  |
| Remarks                                |                   |         |   |   |                      |  |                     |               |                              |  |  |
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PE 0604329N: Small Diameter Bomb (SDB)

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| ppropriation/Budget Activity 319 / 5  Date: March 2014  R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb  Date: March 2014  Project (Number/Name) 1663 / SBD // Integration |     |      |         |         |         |              |                                       |  |   |                      |   |  |  |  |  |   |  |  |  |   |   |  |  |  |  |  |  |
|--|-----|------|---------|---------|---------|--------------|---------------------------------------|--|---|----------------------|---|--|--|--|--|---|--|--|--|---|---|--|--|--|--|--|--|
|  |     |      |         |         |         |              |                                       |  |   | PE (                 | 0604  | <b>jram</b><br>329N  | Ele<br>1 / S   | men<br>mall  | t (Nu<br>Dian                                  | ımbe<br>neter   | er/Na<br>Bon   | ame)<br>nb   |  |   |   |  |  |  |  |  |  |
|  | FY: | 2013 |         |         | FY 2    | 014          |                                       |  | FY 2  | 2015                 |   |  | FY 2   | 016  |  |   | FY 2   | 2017   |  |   | FY 2  | 018  |  |  | FY   | 2019   |  |
| 1Q   | 2Q  | 3Q   | 4Q      | 1Q      | 2Q      | 3Q           | 4Q                                    | 1Q                                       | 2Q  | 3Q                   | 4Q  | 1Q   | 2Q   | 3Q   | 4Q   | 1Q  | 2Q   | 3Q   | 4Q   | 1Q  | 2Q  | 3Q   | 4Q   | 1Q   | 2Q   | 3Q   | 4Q   |
|  |     |      |         |         |         |              |                                       |  |   |                      |   |  |  |  |  |   |  |  |  |   |   |  |  |  |  |  |  |
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|  |     |      |         |         |         |              |                                       |  |   |                      |   |  |  |  |  |   |  |  |  |   |   |  |  |  |  |  |  |
|  |     |      |         |         |         |              |                                       |  |   |                      |   |  |  |  |  |   |  |  |  |   |   |  |  |  |  |  |  |
|  |     | FY : | FY 2013 | FY 2013 | FY 2013 | FY 2013 FY 2 | FY 2013 FY 2014  1Q 2Q 3Q 4Q 1Q 2Q 3Q | FY 2013 FY 2014  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q | FY 2013 FY 2014  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q | FY 2013 FY 2014 FY 2 | FY 2013 FY 2014 FY 2015  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q | R-1 Prog<br>PE 0604<br>(SDB)  FY 2013 FY 2014 FY 2015  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q | R-1 Program PE 0604329N (SDB)  FY 2013 FY 2014 FY 2015  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q | R-1 Program Eler PE 0604329N / S/ (SDB)  FY 2013 FY 2014 FY 2015 FY 2  1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q 3Q 4Q 1Q 2Q | R-1 Program Elemen   PE 0604329N   Small (SDB) | R-1 Program Element (Nu PE 0604329N / Small Dian (SDB)   FY 2013   FY 2014   FY 2015   FY 2016     1Q 2Q 3Q 4Q 1Q 4Q 1Q 3Q 4Q 1Q 1Q 3Q 4Q 1Q 1Q 3Q 4Q 1Q 1Q 1Q 3Q 4Q 1Q | R-1 Program Element (Number 1988)   PE 0604329N   Small Diameter (SDB)   FY 2013   FY 2014   FY 2015   FY 2016 | R-1 Program Element (Number/Na PE 0604329N / Small Diameter Born (SDB)  FY 2013 FY 2014 FY 2015 FY 2016 FY 2010 1Q 2Q 3Q 4Q 4Q 1Q 2Q 3Q 4Q | R-1 Program Element (Number/Name)   PE 0604329N   Small Diameter Bomb (SDB)   FY 2013   FY 2014   FY 2015   FY 2016   FY 2017   1Q 2Q 3Q 4Q 1Q 3Q 4Q | R-1 Program Element (Number/Name)   PE 0604329N   Small Diameter Bomb (SDB)   FY 2013   FY 2014   FY 2015   FY 2016   FY 2017     1Q 2Q 3Q 4Q | R-1 Program Element (Number/Name)   Pro   PE 0604329N   Small Diameter Bomb (SDB) | R-1 Program Element (Number/Name)   Project   1663 / S   S   S   S   S   S   S   S   S   S | R-1 Program Element (Number/Name)   Project (Number/SDB)   PE 0604329N   Small Diameter Bomb (SDB)   1663   SBD   1663 | R-1 Program Element (Number/Name)   Project (Number 1663 / SBD   II Interest   Interes | R-1 Program Element (Number/Name)   Project (Number/Name)   1663   SBD   I Integrate   I | R-1 Program Element (Number/Name)   Project (Number/Name)   1663   SBD   Integration   1663   SBD   Integration   167   168   SBD   Integration   1683   S | R-1 Program Element (Number/Name)   Project (Number/Name)   1663 / SBD // Integration   1663 / SBD // Integration   167 // SDB |

PE 0604329N: *Small Diameter Bomb (SDB)* Navy

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| Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy |       | Date: March 2014                |
|--|-------|---------------------------------|
|  | - 3 ( | umber/Name)<br>O II Integration |

# Schedule Details

|   | St      | art  | End     |      |  |
|---|---------|------|---------|------|--|
| Events by Sub Project   | Quarter | Year | Quarter | Year |  |
| Proj 1663   |         |      |         |      |  |
| F/A-18 E/F SDB II Integration: OFP Development and Integration: OFP Development and Integration | 1       | 2015 | 1       | 2018 |  |
| F/A-18 E/F SDB II Integration: Developmental Test: Developmental Test                           | 1       | 2018 | 3       | 2018 |  |
| F/A-18 E/F SDB II Integration: Operational Test: Operational Test                               | 3       | 2018 | 2       | 2019 |  |
| Initial Operating Capability: Initial Operating Capability                                      | 3       | 2019 | 3       | 2019 |  |

| Exhibit R-2A, RDT&E Project Ju         | stification:   | PB 2015 N | lavy                            |                 |                             |  |         |         |         | Date: Marc | ch 2014             |               |
|--|----------------|-----------|---------------------------------|-----------------|-----------------------------|--|---------|---------|---------|------------|---------------------|---------------|
| Appropriation/Budget Activity 1319 / 5 |                | _         | <b>am Elemen</b><br>29N / Small | •               | , ,                         | Number/Name)<br>mall Diameter Bomb (SDB) |         |         |         |            |                     |               |
| COST (\$ in Millions)                  | Prior<br>Years | FY 2013   | FY 2014                         | FY 2015<br>Base | FY 2015<br>OCO <sup>#</sup> | FY 2015<br>Total                         | FY 2016 | FY 2017 | FY 2018 | FY 2019    | Cost To<br>Complete | Total<br>Cost |
| 3072: Small Diameter Bomb (SDB)        | 108.283        | 16.577    | 16.565                          | 28.916          | -                           | 28.916                                   | 41.580  | 63.439  | 63.308  | 67.887     | 62.244              | 468.799       |
| Quantity of RDT&E Articles             | 0.000          | -         | -                               | -               | -                           | -  | -       | -       | -       | -          |                     |               |

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

## A. Mission Description and Budget Item Justification

SDB II is an ACAT ID program providing the warfighter a capability to attack mobile targets in all weather from Stand-Off range. The Air Force is the lead service, Raytheon in Tucson, AZ is the prime contractor. SDB II addresses the following warfighter requirements: attack mobile targets, multiple kills per pass, multiple ordnance carriage, all weather operations, near-precision munitions capability, capability against fixed targets, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures, and a migration path to net centric ops capability. Threshold aircraft is the F-15E for the Air Force and the F-35B and F-35C for the Department of the Navy. Objective aircraft include the F/A-22, B-1, B-2, F-117, F-16, B-52, Predator B, and F/A-18E/F.

As a result of the Joint Strike Fighter (JSF) (F-35) programs restructure, SDB II integration was moved from the JSF Operational Flight Plan (OFP) Block 3 to Block 4. IOC is FY2020.

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   | FY 2013 | FY 2014 | FY 2015 |
|--|---------|---------|---------|
| Title: SDB II Weapon Support   | 15.000  | 11.655  | 8.353   |
| Articles:  | -       | -       | -       |
| <b>Description:</b> Funding provides for SDB II Engineering Manufacturing and Development (EMD) efforts including weapon vendor support, test assets, and government support.            |         |         |         |
| FY 2013 Accomplishments: Continued support of EMD and integration of SDB II with F-35B and F-35C.  |         |         |         |
| FY 2014 Plans: Continue support of EMD and integration of SDB II with F-35B and F-35C. Continue support of SDB II prime contractor and government support of weapon development efforts. |         |         |         |
| FY 2015 Plans:   |         |         |         |

PE 0604329N: Small Diameter Bomb (SDB)

Navy

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| Exhibit R-2A, RDT&E Project Jus   |   |  |                                       |                                       |   |                             |                               |              |                            |                        |         |
|---|---|--|---------------------------------------|---------------------------------------|---|-----------------------------|-------------------------------|--------------|----------------------------|------------------------|---------|
|   | stification: PB   | 2015 Navy  |                                       |                                       |   |                             |                               |              | Date: M                    | larch 2014             |         |
| Appropriation/Budget Activity<br>1319 / 5   |   |  |                                       |                                       |   | nent (Numbenall Diameter    |                               | •            | t (Number/N<br>Small Diame | lame)<br>eter Bomb (SL | OB)     |
| B. Accomplishments/Planned Pro  | ograms (\$ in N   | lillions, Art  | icle Quantit                          | ies in Each)                          | <u>.</u>                                    |                             |                               |              | FY 2013                    | FY 2014                | FY 2015 |
| Continue support of EMD and integ<br>government support of weapon dev<br>were delayed to FY15 to accommo  | velopment effor   | ts. Begin s  | ecific F-35B                          | and F-35C                             |   |                             |                               | hich         |                            |                        |         |
| Title: JSF Integration  |   |  |                                       |                                       |   |                             |                               |              | 1.577                      | 4.910                  | 20.56   |
|   |   |  |                                       |                                       |   |                             | A                             | rticles:     | -                          | -                      | -       |
| Operational Flight Program (OFP):  FY 2013 Accomplishments: Continued F-35 OFP development  FY 2014 Plans: Continue F-35 OFP development a coding of Universal Armament Inte SDB II weapon development.  FY 2015 Plans: Continue F-35 UAI OFP development modifications required for SDB II/JS development and integration. | and coding and and coding and and enface (UAI) and ent and coding | d support fit c<br>support fit c<br>I JSF Block<br>and support | checks with hecks and te 4 OFP and fo | SDB II Weal sting with Sull manning o | oon vendor (<br>DB II Weapo<br>of JSF prime | on Vendor. Be contractor to | eam to suppo<br>or. Begin F-3 | ort<br>5 bay |                            |                        |         |
|   |   |  |                                       |                                       | e contractor                                | team to supp                | OOU SDB II W                  | eapon        |                            |                        |         |
|   |   |  |                                       | Accon                                 |   |                             | ograms Sul                    |              | 16.577                     | 16.565                 | 28.91   |

PE 0604329N: *Small Diameter Bomb (SDB)* Navy

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| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy |     |     | Date: March 2014                       |
|---|-----|-----|--|
| ,   | , , | , , | umber/Name)<br>all Diameter Bomb (SDB) |

## D. Acquisition Strategy

The SDB Increment II acquisition strategy is to conduct a full and open competition to select up to two contractors to compete during a planned 42-month risk reduction phase prior to entering EMD. This competition began April 17, 2006 with the signature of contracts to the competing contractors: 1) Raytheon and 2) the team of Boeing and Lockheed Martin. A Fixed Price Incentive Firm Target type contract for EMD, including Firm Fixed Price procurement options for Lots 1-3 was awarded to Raytheon August 9, 2010. Lots 4 & 5 are included in the contract, but are Not-To-Exceed options.

The Navy funding will support Navy-unique efforts for SDB Increment II, such as aircraft integration, ship suitability, studies and analysis, and program management and government in-house support. These efforts will be performed on several cost-type contracts or through cost reimbursable work requests to government activities and contractors.

### **E. Performance Metrics**

| Earned value managemen | t has been | implemented of | on the EMD | contract with Ray | vtheon. |
|------------------------|------------|----------------|------------|-------------------|---------|
|                        |            |                |            |                   |         |

PE 0604329N: Small Diameter Bomb (SDB)

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy | Date: March 2014  |  |
|--|---|--|
| Appropriation/Budget Activity 1319 / 5                 | R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB) | Project (Number/Name) 3072 I Small Diameter Bomb (SDB) |

| Product Developmen  | nt (\$ in Mi                 | illions)                            |                | FY 2013 |               | FY 2014 |               | FY 2015<br>Base |               | FY 2015<br>OCO |               | FY 2015<br>Total |                     |               |                                |
|---|------------------------------|-------------------------------------|----------------|---------|---------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location   | Prior<br>Years | Cost    | Award<br>Date | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Primary Hardware<br>Development - SDB II<br>EMD             | C/FPIF                       | Raytheon : Tucson,<br>AZ            | 10.835         | 10.319  | Jan 2013      | 6.200   | Jan 2014      | 2.166           | Jan 2015      | -              |               | 2.166            | 95.052              | 124.572       | 124.572                        |
| Aircraft Integration - JSF                                  | C/CPFF                       | Lockheed Martin :<br>Fort Worth, TX | 16.578         | 1.577   | Jan 2014      | -       |               | 11.563          | Jan 2015      | -              |               | 11.563           | 35.700              | 65.418        | 65.418                         |
| Prior year Prod Dev cost<br>no longer funded in the<br>FYDP | Various                      | Various : Various                   | 15.497         | -       |               | -       |               | -               |               | -              |               | -                | -                   | 15.497        | -                              |
|   | •                            | Subtotal                            | 42.910         | 11.896  |               | 6.200   |               | 13.729          |               | -              |               | 13.729           | 130.752             | 205.487       | -                              |

#### Remarks

Primary Hardware Development Prior Years includes McDonnell Douglas Corp and Raytheon Missile Systems Primary H/W Development for the SDB II 42-month risk reduction phase, \$4.393M for Boeing/Lockheed Martin team and \$4.393M for Raytheon and \$2.6M for Joint Surface Warfare (JSuW) efforts with Raytheon and \$4.111M for BRU-61 Shipboard Suitability efforts.

Primary Hardware Development to Raytheon in Tucson, AZ reflects the winning SDB II contractor and includes test assets. FY13 includes additional tasks required not included in the baseline EMD contract, such as peculiar support equipment and F35 Pit Test Support. FY14 and FY15 Primary Hardware Development reflects additional prime contractor costs to support F-35 and JMM BRU integration.

Funding for Lockheed Martin F-35 includes bay modifications, logistics efforts, and adapter hardware. It does not include OFP, UAI software coding, nor test missions which are represented in Support and Test sections, respectively. FY 2013 through FY 2015 includes funding for risk reduction efforts including F-35 internal bay modification efforts for SDB II, adapter and strut hardware and thermal compatability analysis. FY13 contract award delayed due to contractor negotiations. FY14 planned bay modifications with Lockheed Martin have been delayed until FY15.

Beginning FY11, funding for JMM BRU (BRU-61A/A) is included in PU3082.

| Support (\$ in Millions)                             |                              |                                   |                | FY:  | 2013          | FY 2014 |               | FY 2015<br>Base |               | FY 2015<br>OCO |               | FY 2015<br>Total |                     |               |                                |
|--|------------------------------|-----------------------------------|----------------|------|---------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item                                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost | Award<br>Date | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Software Development - JSF                           | C/CPFF                       | Lockheed Martin : Ft. Worth, TX   | 1.204          | -    | Nov 2013      | 4.910   | Jan 2014      | 9.000           | Jan 2015      | -              |               | 9.000            | 44.762              | 59.876        | 59.876                         |
| Prior year Support cost no longer funded in the FYDP | Various                      | Various : Various                 | 17.410         | -    |               | -       |               | -               |               | -              |               | -                | -                   | 17.410        | -                              |

PE 0604329N: *Small Diameter Bomb (SDB)* Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

**Appropriation/Budget Activity** 1319 / 5

PE 0604329N / Small Diameter Bomb

3072 I Small Diameter Bomb (SDB)

Date: March 2014

(SDB)

| Support (\$ in Millions | s)                           |                                   |                | FY 2 | 2013          | FY 2  | 2014          | FY 2<br>Ba |               |      | 2015<br>CO    | FY 2015<br>Total |                     |               |                                |
|-------------------------|------------------------------|-----------------------------------|----------------|------|---------------|-------|---------------|------------|---------------|------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item      | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost | Award<br>Date | Cost  | Award<br>Date | Cost       | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
|                         |                              | Subtotal                          | 18.614         | -    |               | 4.910 |               | 9.000      |               | -    |               | 9.000            | 44.762              | 77.286        | -                              |

#### Remarks

Studies and Analyses include Navy activities to define CONOPS and better define Navy-specific and interoperability requirements, such as weapon data link advanced concept technology demonstration, seeker trade studies, and data link trade studies. Prior year Software Development efforts are in support of JSuW Joint Capability Technology Demonstrations (JCTD) incorporation of J.11 Message Set into Strike Weapons and Weapon Data Link Network efforts.

Software Development for JSF is the UAI, OFP, and mission planning which supports the SDB II program. Contract award was scheduled for 2013, but delayed due to contractor negotiations. FY 2014 begins the requirements definition for UAI.

| Test and Evaluation                              | nd Evaluation (\$ in Millions) |                                   |                | FY 2013 |               | FY 2014 |               | FY 2015<br>Base |               | FY 2015<br>OCO |               | FY 2015<br>Total |                     |               |                                |
|--|--------------------------------|-----------------------------------|----------------|---------|---------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item                               | Contract<br>Method<br>& Type   | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Developmental Test & Evaluation - JSuW/WDLN      | Various                        | Various : Various                 | 2.864          | -       |               | -       |               | -               |               | -              |               | -                | 4.058               | 6.922         | -                              |
| Operational Test & Evaluation - SDBII            | WR                             | COMOPTEVFOR :<br>China Lake, CA   | 1.010          | -       |               | -       |               | -               |               | -              |               | -                | 16.018              | 17.028        | -                              |
| Developmental Test & Evaluation - SDB II         | C/CPFF                         | Lockheed Martin : Ft. Worth, TX   | 0.000          | -       |               | -       |               | -               |               | -              |               | -                | 45.939              | 45.939        | 45.939                         |
| Prior Year T&E cost no longer funded in the FYDP | Various                        | Various : Various                 | 8.049          | -       |               | -       |               | -               |               | -              |               | -                | -                   | 8.049         | 8.049                          |
|  |                                | Subtotal                          | 11.923         | -       |               | -       |               | -               |               | -              |               | -                | 66.015              | 77.938        | -                              |

#### Remarks

Developmental T&E (DT) and Operational T&E (OT) include all aspects of the weapon system - SDB II, JMM BRU, and F35 aircraft OFP. There will be no separate DT or OT period for JMM BRU. Operational test is scheduled for 2020.

| Management Service  | s (\$ in M                   | illions)                          |                | FY 2  | 2013          | FY 2  | 2014          | FY 2<br>Ba | 2015<br>ise   | FY 2 |               | FY 2015<br>Total |                     |               |                                |
|---------------------|------------------------------|-----------------------------------|----------------|-------|---------------|-------|---------------|------------|---------------|------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost  | Award<br>Date | Cost  | Award<br>Date | Cost       | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Contractor Services | Various                      | Various : Various                 | 1.396          | 0.312 | Nov 2012      | 0.487 | Nov 2013      | 0.505      | Nov 2014      | -    |               | 0.505            | 2.252               | 4.952         | -                              |

PE 0604329N: Small Diameter Bomb (SDB)

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy Date: March 2014 Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name) 1319 *l* 5 PE 0604329N / Small Diameter Bomb 3072 I Small Diameter Bomb (SDB)

(SDB) FY 2015 FY 2015 FY 2015 **Management Services (\$ in Millions)** FY 2013 FY 2014 Base oco Total Contract Target Value of Method Award Award Cost To Performing Prior Award Award Total

|                               | WELLIOU | renoming                       | FIIOI  |       | Awaiu    |       | Awaiu    |       | Awaiu    |      | Awaiu |       | COSTIL   | iotai  | value of |
|-------------------------------|---------|--------------------------------|--------|-------|----------|-------|----------|-------|----------|------|-------|-------|----------|--------|----------|
| Cost Category Item            | & Type  | <b>Activity &amp; Location</b> | Years  | Cost  | Date     | Cost  | Date     | Cost  | Date     | Cost | Date  | Cost  | Complete | Cost   | Contract |
| Government Support            | WR      | NAWC WD : China<br>Lake,CA     | 18.372 | 2.511 | Nov 2012 | 2.767 | Nov 2013 | 2.832 | Nov 2014 | -    |       | 2.832 | 19.298   | 45.780 | -        |
| Government Support            | WR      | Various : Various              | 8.298  | 0.170 | Nov 2012 | 0.250 | Nov 2013 | 0.750 | Nov 2014 | -    |       | 0.750 | 3.593    | 13.061 | -        |
| Program Management<br>Support | WR      | Various : Various              | 5.021  | 1.656 | Nov 2012 | 1.801 | Nov 2013 | 1.950 | Nov 2014 | -    |       | 1.950 | 13.385   | 23.813 | -        |
| Travel                        | MIPR    | ASC20OG : Eglin<br>AFB, FL     | 1.749  | 0.032 | Oct 2012 | 0.150 | Oct 2013 | 0.150 | Oct 2014 | -    |       | 0.150 | 1.400    | 3.481  | -        |
|                               |         | Subtotal                       | 34.836 | 4.681 |          | 5.455 |          | 6.187 |          | -    |       | 6.187 | 39.928   | 91.087 | -        |
| 1                             |         |                                |        |       |          |       |          |       |          |      |       |       |          |        |          |

|                     |         |        |    |        |     |        |      |      |      |         |          |         | Target   |
|---------------------|---------|--------|----|--------|-----|--------|------|------|------|---------|----------|---------|----------|
|                     | Prior   |        |    |        |     | FY 2   | 2015 | FY 2 | 2015 | FY 2015 | Cost To  | Total   | Value of |
|                     | Years   | FY 20  | 13 | FY 2   | 014 | Ва     | se   | 00   | co   | Total   | Complete | Cost    | Contract |
| Project Cost Totals | 108.283 | 16.577 |    | 16.565 |     | 28.916 |      | -    |      | 28.916  | 281.457  | 451.798 | -        |

Remarks

PE 0604329N: Small Diameter Bomb (SDB) Navy

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| Exhibit R-4, RDT&E Schedule P             | rof | ile:     | PE  | 3 20 | 15   | Na۱      | /y  |                |   |      |         |           |   |           |        |   |        |        | Date: M  | larch  | 2014   |
|---|-----|----------|-----|------|------|----------|---|----------------|---|------|---------|-----------|---|-----------|--------|---|--------|--------|--|--------|--|
| Appropriation/Budget Activity<br>1319 / 5 |     |          |     |      |      |          |   |                |   | PE   |         |           | ram Elemen<br>329N / Small                                    |           |        | nber/Name)<br>eter Bomb   |        |        | ect (Number/N<br>I Small Diame   |        |  |
| Small Diameter Bomb II                    |     | Y 2      |     |      | olac |          | Y 2014  | _              | FY 201  |      | 0140    |           | FY 2016   | 200       |        | FY 2017   |        |        | FY 2018  |        | FY 2019                                      |
| Acquisition Milestones                    | 10  | 200      | 304 | QH   | J 2C | 130      | 4Q  | 1Q             | 2Q  | - 3  | Q 4Q    | 1Q        | 2Q  | 3Q        | 401    | Q 2Q 3  | 악      | 4Q10   | 2Q 30  | 2401   | Q 2Q 3Q4                                     |
| Milestones                                |     |          |     |      |      |          |   |                |   |      | MS<br>C |           |   |           |        |   |        |        |  |        |  |
| Systems Development  Hardware Development |     |          | 1   | 1    | 1    | ı        |   | ı              | Er  | ngin | eering  | ]<br>g M  | anufacturing a  | nd I      | Deve   | elopment (EMD)  | ı      | 1      | 1 1  | 1 1    | 1 11   |
| Reviews<br>Test & Evaluation              | Ш   | $\dashv$ | 4   | 4    | 4    | <u> </u> |   | <del> </del> _ |   | 4    | _       | <u> </u>  |   | $\square$ | 4      | ++  | 4      | - -    | -  | -      | +  |
| Technical Evaluation                      | i i |          | ı   |      |      | l        |   |                |   | ı    |         | l         |   | i         |        | De  | ve     | lopme  | ental Test   |        | i ii   |
| Production Milestones                     | П   | $\neg$   | 寸   | 7    | 1    | İ        |   | 1              |   | 7    |         | İ         |   |           | $\neg$ | 1 1   | $\neg$ | $\neg$ |  | $\Box$ |  |
| Contract Awards                           |     |          |     |      |      |          | Low Rate Initial Production (LRIP) I contract Award (USAF only) (Missile Procurement, AF) |                | LRIP II Contract Award (USAF Only (Missile Procuremen AF) |      |         |           | LRIP III Contract Award (USAF only) (Missile Procurement, AF) |           |        | LRIP IV Contract Award (USAF and DON) (Missile Procurement, AF and WPN) |        |        | LRIP V Contract Award (USAF and DON) (Missile Procurement, AF and WPN) |        | FRP Lot<br>6<br>Contract<br>Award            |
| Deliveries                                |     |          |     |      |      |          |   |                |   |      | LF      | <br> <br> | I Deliveries (U<br>nly 144 units)                             | SAI       | F      |   |        |        |  |        |  |
|   | ii  |          |     |      |      |          |   |                |   |      |         |           |   |           | LRI    | P II Deliveries (US<br>only 250 units)                                  | SA     | F      |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        | LRIP   | III Deliveries (US<br>only 390 units)                                  | SAF    |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        | RIP IV Deliveries<br>ISAF and DoN<br>460/90) |
| 2015PB - 0604329N - 3072                  |     |          | Ċ   | Ċ    |      |          | •   |                | •   | Ċ    |         |           |   |           | ·      |   |        | Ċ      |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |
|   |     |          |     |      |      |          |   |                |   |      |         |           |   |           |        |   |        |        |  |        |  |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy |       |     | Date: March 2014                       |
|--|-------|-----|--|
| , , ,  | , , , | , , | umber/Name)<br>all Diameter Bomb (SDB) |

# Schedule Details

|   | Sta     | art  | En      | d    |
|---|---------|------|---------|------|
| Events by Sub Project   | Quarter | Year | Quarter | Year |
| Small Diameter Bomb II  |         |      |         |      |
| Acquisition Milestones: MS C  | 4       | 2015 | 4       | 2015 |
| Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD)  | 1       | 2013 | 4       | 2019 |
| Test & Evaluation: Technical Evaluation: Developmental Test   | 2       | 2017 | 4       | 2018 |
| Production Milestones: Contract Awards: Low Rate Initial Production (LRIP) I Contract Award (USAF Only) (Missile Procurement, AF) | 4       | 2014 | 4       | 2014 |
| Production Milestones: Contract Awards: LRIP II Contract Award (USAF Only) (Missile Procurement, AF)                              | 2       | 2015 | 2       | 2015 |
| Production Milestones: Contract Awards: LRIP III Contract Award (USAF Only) (Missile Procurement, AF)                             | 2       | 2016 | 2       | 2016 |
| Production Milestones: Contract Awards: LRIP IV Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)                   | 2       | 2017 | 2       | 2017 |
| Production Milestones: Contract Awards: LRIP V Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)                    | 2       | 2018 | 2       | 2018 |
| Production Milestones: Contract Awards: FRP Lot 6 Contract Award (USAF and DoN) (Missile Procurement, AF and WPN)                 | 2       | 2019 | 2       | 2019 |
| Deliveries: LRIP I Deliveries (USAF only 144 units)   | 4       | 2015 | 4       | 2016 |
| Deliveries: LRIP II Deliveries (USAF only 250 units)  | 4       | 2016 | 4       | 2017 |
| Deliveries: LRIP III Deliveries (USAF only 390 units)   | 4       | 2017 | 4       | 2018 |
| Deliveries: LRIP IV Deliveries (USAF and DoN 460/90)  | 4       | 2018 | 4       | 2019 |
| Deliveries: LRIP V Deliveries (USAF and DoN)  | 4       | 2019 | 4       | 2019 |

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| Exhibit R-2A, RDT&E Project Ju         | stification:   | PB 2015 N | Navy    |                 |                  |                                 |         |         |                          | Date: Marc | ch 2014 |               |  |  |
|--|----------------|-----------|---------|-----------------|------------------|---------------------------------|---------|---------|--------------------------|------------|---------|---------------|--|--|
| Appropriation/Budget Activity 1319 / 5 |                |           |         |                 | _                | <b>am Elemen</b><br>29N / Small | •       | •       | Project (N<br>3082 / JMI |            | Cost To |               |  |  |
| COST (\$ in Millions)                  | Prior<br>Years | FY 2013   | FY 2014 | FY 2015<br>Base | FY 2015<br>OCO # | FY 2015<br>Total                | FY 2016 | FY 2017 | FY 2018                  | FY 2019    |         | Total<br>Cost |  |  |
| 3082: <i>JMM BRU</i>                   | 6.418          | 12.306    | 8.360   | 13.933          | -                | 13.933                          | 11.769  | 8.836   | 4.862                    | 3.634      | 1.461   | 71.579        |  |  |
| Quantity of RDT&E Articles             | 0.000          | -         | -       | -               | -                | -                               | -       | -       | -                        | -          |         |               |  |  |

<sup>\*</sup> The FY 2015 OCO Request will be submitted at a later date.

R Accomplishments/Planned Programs (\$ in Millions Article Quantities in Each)

## A. Mission Description and Budget Item Justification

The Joint Miniature Munitions Bomb Rack Unit (JMM BRU) is an Air Force (AF) led ACAT III program. It is required for the Department of the Navy's (DoN) carriage of the SDB II weapon in the internal bay of the F-35B and F-35C and operation in the DoN environment. The SDB II Capability Development Document (CDD) states that it must be operable on the Miniature Munitions Smart Rack BRU-61/A. The BRU-61/A, currently in production in the AF, does not meet the needs to operate with SDB II within the F-35 internal bay in the DoN environment. The JMM BRU, designated BRU-61A/A, fills the capability gap required by the DoN. Efforts include development of a dual power capability to meet the SDB II operating environment on the F-35.

SDB II and the JMM BRU integration were moved from F-35 Block 3 to Block 4. Budgets and schedules have been modified to meet the F-35 Block 4 schedule.

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)   | FY 2013 | FY 2014 | FY 2015 |
|--|---------|---------|---------|
| Title: Joint Miniature Munitions Bomb Rack Unit (JMM BRU) Government Support   | 2.606   | 3.586   | 4.112   |
| Articles:  | -       | -       | -       |
| <b>Description:</b> Funding provided for the SDB II Carriage System support and integration into Navy environments.      |         |         |         |
| FY 2013 Accomplishments:   |         |         |         |
| Completed source selection and awarded Technology Develompent (TD) contract.   |         |         |         |
| FY 2014 Plans:   |         |         |         |
| Continue with TD Phase. Full manning of JMM BRU government team and conduct DoN logistics efforts for support equipment, |         |         |         |
| specific to JMM BRU.   |         |         |         |
| FY 2015 Plans:   |         |         |         |
| Complete TD phase and enter Engineering Management and Development (EMD) phase with prime contractor. Full manning of    |         |         |         |
| JMM BRU government team and conduct DoN logistics efforts for support equipment specific to JMM BRU.                     |         |         |         |
| Title: Joint Miniature Munitions Bomb Rack (JMM BRU) Prime Contractor  | 9.700   | 4.774   | 9.821   |
| Articles:  | 2.000   | 5.000   | -       |
| Description: Prime Contractor Support of JMM BRU (BRU-61A/A) TD/EMD contract.  |         |         |         |
| FY 2013 Accomplishments:   |         |         |         |

PE 0604329N: Small Diameter Bomb (SDB)

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Navy

| Exhibit R-2A, RDT&E Project Justification: PB 2015 Navy   |   | Date: N                             | /larch 2014 |         |
|---|---|-------------------------------------|-------------|---------|
| Appropriation/Budget Activity 1319 / 5  | R-1 Program Element (Number/Name) PE 0604329N / Small Diameter Bomb (SDB) | Project (Number/I<br>3082 / JMM BRU | Name)       |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Que Completed source selection of JMM BRU prime contractor and the T Baseline Review (IBR).                | •   | <b>FY 2013</b> ated                 | FY 2014     | FY 2015 |
| FY 2014 Plans: Continue TD contract. JMM BRU Prime contractor fully manned to oprototypes, four Inertial Measurement Vehicle (IMV) BRUs, and three integration efforts. |   | SF                                  |             |         |
| FY 2015 Plans: Execute EMD contract. JMM BRU prime contractor fully manned to   | complete EMD phase.   |                                     |             |         |
|   | Accomplishments/Planned Programs Sub                                      | totals 12.306                       | 8.360       | 13.933  |

## C. Other Program Funding Summary (\$ in Millions)

|                           |         |         | FY 2015     | FY 2015 | FY 2015      |         |         |         |         | <b>Cost To</b>  |                   |
|---------------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u>          | FY 2013 | FY 2014 | <b>Base</b> | OCO     | <u>Total</u> | FY 2016 | FY 2017 | FY 2018 | FY 2019 | <b>Complete</b> | <b>Total Cost</b> |
| APN/0720: War Consumables | -       | -       | -           | -       | -            | -       | -       | 13.617  | 18.117  | 220.951         | 252.685           |

## Remarks

## D. Acquisition Strategy

The JMM BRU is an Air Force led ACAT III program. Industry day was held 4Q FY2010, acquisition strategy approved 1Q FY2011 and Material Development Decision (MDD) 2Q FY 2011. Competitive source selection conducted with contract award 3Q FY2013.

### **E. Performance Metrics**

Earned value management is being implemented on the TD/EMD contract for the technology demonstration contract.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

Date: March 2014

**Appropriation/Budget Activity** 1319 / 5

PE 0604329N / Small Diameter Bomb (SDB)

3082 *I JMM BRU* 

| Product Developme  | nt (\$ in M                  | illions)  |                | FY 2  | 2013          | FY 2  | 2014          |       | 2015<br>ise   | FY 2 | 2015<br>CO    | FY 2015<br>Total |                     |               |                                |
|--|------------------------------|---|----------------|-------|---------------|-------|---------------|-------|---------------|------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item                                       | Contract<br>Method<br>& Type | Performing<br>Activity & Location                                   | Prior<br>Years | Cost  | Award<br>Date | Cost  | Award<br>Date | Cost  | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Joint Miniature Munitions<br>Bomb Rack Unit (JMM<br>BRU) | C/FPIF                       | Raytheon Technical<br>Services Company<br>LLC : Indianapolis,<br>IN | 0.000          | 9.700 | Jun 2013      | 4.774 | Apr 2014      | 9.821 | Apr 2015      | -    |               | 9.821            | 9.881               | 34.176        | 34.176                         |
|  |                              | Subtotal  | 0.000          | 9.700 |               | 4.774 |               | 9.821 |               | -    |               | 9.821            | 9.881               | 34.176        | 34.176                         |

### Remarks

Funding provided to Raytheon Technical Services Company LLC for development of a JMM BRU SDB II carriage system which satisfies DoN environments. JMM BRU will carry four SDB II's and will be capable of being used both internally and externally.

| Test and Evaluation | (\$ in Milli                 | ons)                              |                | FY 2 | 2013          | FY 2 | 2014          |      | 2015<br>ise   | FY 2 | 2015<br>CO    | FY 2015<br>Total |                     |               |                                |
|---------------------|------------------------------|-----------------------------------|----------------|------|---------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Flight Test         | TBD                          | TBD : TBD                         | 0.000          | -    |               | -    |               | -    |               | -    |               | -                | 0.436               | 0.436         | -                              |
|                     |                              | Subtotal                          | 0.000          | -    |               | -    |               | _    |               | -    |               | _                | 0.436               | 0.436         | -                              |

### Remarks

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DT and OT efforts are budgeted for in the SDB II project unit as DT and OT will be for total weapon system. There will be no dedicated JMM BRU DT and OT. Funding in cost to complete will fund captive carry testing in FY17.

Flight Test conducted will be fit checks on F-35B and F-35C with the new JMM BRU.

| Management Servic  | es (\$ in M                  | illions)                          |                | FY 2013 |               | FY 2014 |               | FY 2<br>Ba | 2015<br>ise   | FY 2 |               | FY 2015<br>Total |                     |               |                                |
|--------------------|------------------------------|-----------------------------------|----------------|---------|---------------|---------|---------------|------------|---------------|------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost    | Award<br>Date | Cost    | Award<br>Date | Cost       | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
| Government Support | WR                           | NAWC WD : China<br>Lake, CA       | 2.002          | 1.939   | Nov 2012      | 2.665   | Nov 2013      | 3.066      | Nov 2014      | -    |               | 3.066            | 12.000              | 21.672        | -                              |
| Government Support | WR                           | Various : Various                 | 4.201          | 0.511   | Nov 2012      | 0.719   | Nov 2013      | 0.842      | Nov 2014      | -    |               | 0.842            | 14.605              | 20.878        | -                              |
| Travel             | MIPR                         | ASC20OG : Eglin<br>AFB, FL        | 0.090          | 0.031   | Nov 2012      | 0.075   | Oct 2013      | 0.075      | Oct 2014      | -    |               | 0.075            | 1.250               | 1.521         | -                              |

PE 0604329N: Small Diameter Bomb (SDB)

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Nav | у                                 | Date: March 2014      |
|---|-----------------------------------|-----------------------|
| Appropriation/Budget Activity                         | R-1 Program Element (Number/Name) | Project (Number/Name) |
| 1319 / 5  | PE 0604329N / Small Diameter Bomb | 3082 <i>I JMM BRU</i> |
|   | (SDB)                             |                       |

| Management Service  | es (\$ in M                  | ,                                 |                | FY 2  | 2013          | FY 2  | 2014          | FY 2<br>Ba |               | FY 2 | 2015<br>CO    | FY 2015<br>Total |         |               |                                |
|---------------------|------------------------------|-----------------------------------|----------------|-------|---------------|-------|---------------|------------|---------------|------|---------------|------------------|---------|---------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Prior<br>Years | Cost  | Award<br>Date | Cost  | Award<br>Date | Cost       | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To | Total<br>Cost | Target<br>Value of<br>Contract |
| Contractor Services | MIPR                         | AFLCMC : Eglin<br>AFB, FL         | 0.125          | 0.125 | Nov 2012      | 0.127 | Dec 2013      | 0.129      | Dec 2014      | -    |               | 0.129            | 0.750   | 1.256         | -                              |
|                     |                              | Subtotal                          | 6.418          | 2.606 |               | 3.586 |               | 4.112      |               | -    |               | 4.112            | 28.605  | 45.327        | -                              |
|                     |                              |                                   |                |       |               |       |               |            |               |      |               |                  |         |               | Target                         |

|                     | Prior<br>Years | FY 2   | 013 | FY 2  | 014 | FY 2<br>Ba | <br>FY 2 | <br>FY 2015<br>Total | Cost To<br>Complete | Total<br>Cost | Target<br>Value of<br>Contract |
|---------------------|----------------|--------|-----|-------|-----|------------|----------|----------------------|---------------------|---------------|--------------------------------|
| Project Cost Totals | 6.418          | 12.306 |     | 8.360 |     | 13.933     | -        | 13.933               | 38.922              | 79.939        | -                              |

Remarks

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|   |       |         |                   |     |         |          |          |          |          | UNC                                | LA       | 33       | II       | בט                                    |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|---|-------|---------|-------------------|-----|---------|----------|----------|----------|----------|------------------------------------|----------|----------|----------|---------------------------------------|----------|----------|--------------|----------------|----------|----------|----------|---|---|-------------------|--------|------|------|-------------------|----------|
| Exhibit R-4, RDT&E Schedule Pro                       | file: | РΒ      | 2015 N            | avy | /       |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   | D                 | ate    | ): M | arcł | า 2014            |          |
| Appropriation/Budget Activity<br>  319 / 5            |       |         |                   |     |         |          |          |          | l l      |                                    |          |          |          |                                       |          |          |              |                |          |          |          | Project (Number/Name)<br>3082 / JMM BRU |   |                   |        |      |      |                   |          |
| Joint Miniature Munitions Bomb<br>Rack Unit (JMM BRU) |       | FY 2013 |                   |     | FY 2014 |          |          | .        | FY       |                                    | 2015     |          | FY 2016  |                                       |          |          | FY 2017      |                |          |          | FY 2018  |   |   | FY 2019           |        |      | ī    |                   |          |
|   | 1Q    | 2Q      | 3Q                | 40  | 2 1Q    | 2Q       | 3Q       | 4Q       | 1Q       | 2Q                                 | 3        | 3Q       | 4Q       | 1Q                                    | 2Q       | 3Q       | 4Q           | 1Q             | 2Q       | 3Q       | 4Q       | 1Q 2                                    | Q | 3Q                | 4Q     | 1Q   | 2Q   | 3Q                | 4Q       |
| Acquisition Milestonees  Milestones                   |       |         |                   |     |         |          |          |          | ,        | Milestor                           | е В      |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
| Systems Development                                   | ╁     |         |                   | ╁   | 1       | $\vdash$ | $\dashv$ | 러        | $\dashv$ |                                    | $\dashv$ | $\dashv$ | 十        |                                       | $\vdash$ | $\dashv$ | H            | 十              | 一        | 러        | $\dashv$ | $\dashv$                                | ╁ |                   |        | 一    |      | l                 | $\vdash$ |
| Hardware Development                                  |       |         | Contract<br>Award |     | Techr   | nolos    | gy C     | Deve     | elopi    | ment                               |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   | _   | -       |          | ٠,       |          | -        |                                    |          | -        |          |                                       |          |          |              | -              | ١        |          |          |   | - |                   |        |      |      | ļ                 |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          | Eng      | gine     | ering M                               | lanu     | (E       | turir<br>MD) | ig ai          | nd [     | Dev      | elop     | ment                                    | t |                   |        |      |      |                   |          |
| Reviews   |       |         |                   |     |         |          |          |          | F        | Prelimin<br>Desig<br>Revie<br>(PDR | n<br>w   |          | E        | Critical<br>Design<br>Review<br>(CDR) |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
| Test & Evaluation                                     | 1     |         |                   | 1   |         |          |          | T        | T        |                                    | T        | T        | T        |                                       |          |          |              | T              | T        | T        | T        |   | Ť |                   |        |      |      |                   | П        |
| Technical Evaluation                                  |       |         |                   |     |         |          |          |          |          | Design                             | Verif    | icat     | tion     |                                       |          |          | Env<br>Qu    | iron<br>alific |          |          |          |   |   |                   |        |      |      |                   |          |
| Procurement   | †     |         |                   | 一   | 1       | H        | 一        | $\neg$   | $\neg$   |                                    |          | $\neg$   | $\neg$   |                                       | H        |          |              | $\neg$         |          | $\neg$   | $\dashv$ | $\dashv$                                | ┪ |                   | $\Box$ | 一    |      | i                 | H        |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   | c | Contract<br>Award |        |      |      | Contract<br>Award |          |
| Deliveries  | ╁     |         |                   | ╁   | +       | $\vdash$ | $\dashv$ | $\dashv$ | $\dashv$ |                                    | $\dashv$ | $\dashv$ | $\dashv$ |                                       | $\vdash$ | $\dashv$ | $\vdash$     | $\dashv$       | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$                                | ╁ |                   | Н      | ├    |      |                   | $\vdash$ |
|   | İ     | İ       |                   | İ   |         | i i      | i        | İ        | j        |                                    | İ        | İ        | į        |                                       | i i      | İ        | i i          | j              | j        | į        | İ        | İ                                       | İ |                   |        | İ    | İ    | İ                 | i i      |
| 2015PB - 0604329N - 3082                              |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |
|   |       |         |                   |     |         |          |          |          |          |                                    |          |          |          |                                       |          |          |              |                |          |          |          |   |   |                   |        |      |      |                   |          |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2015 Navy |   | Date: March 2014                  |
|--|---|-----------------------------------|
| Appropriation/Budget Activity 1319 / 5             | 1 | ject (Number/Name)<br>2 I JMM BRU |

# Schedule Details

|  | Sta     | art  | En      | d    |
|--|---------|------|---------|------|
| Events by Sub Project  | Quarter | Year | Quarter | Year |
| Joint Miniature Munitions Bomb Rack Unit (JMM BRU)   |         |      |         |      |
| Acquisition Milestonees: Milestone B   | 2       | 2015 | 2       | 2015 |
| Systems Development: Hardware Development: Technology Development Contract Award           | 3       | 2013 | 3       | 2013 |
| Systems Development: Hardware Development: Technology Development                          | 3       | 2013 | 3       | 2015 |
| Systems Development: Hardware Development: Engineering Manufacturing and Development (EMD) | 3       | 2015 | 2       | 2018 |
| Systems Development: Reviews: Preliminary Design Review (PDR)                              | 2       | 2015 | 2       | 2015 |
| Systems Development: Reviews: Critical Design Review (CDR)                                 | 1       | 2016 | 1       | 2016 |
| Test & Evaluation: Technical Evaluation: Design Verification                               | 4       | 2014 | 1       | 2016 |
| Test & Evaluation: Technical Evaluation: Environmental Qualification                       | 3       | 2016 | 4       | 2017 |
| Procurement: LRIP 1 Contract Award   | 3       | 2018 | 3       | 2018 |
| Procurement: LRIP 2 Contract Award   | 3       | 2019 | 3       | 2019 |
| Deliveries: LRIP 1 Deliveries  | 4       | 2019 | 4       | 2019 |