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**Department of Defense
Fiscal Year (FY) 2020 Budget Estimates**

March 2019



Navy

Justification Book Volume 2 of 3

Aircraft Procurement, Navy

Budget Activity 05

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The estimated cost of this report for the Department of the Navy (DON) is \$58,672.

The estimated total cost for supporting the DON budget justification material is approximately \$1,803,116 for the 2019 fiscal year. This includes \$81,351 in supplies and \$1,721,765 in labor.

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Navy • Budget Estimates FY 2020 • Procurement

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Department of Defense Appropriations Act, 2020

Aircraft Procurement, Navy

For construction, procurement, production, modification, and modernization of aircraft, equipment, including ordnance, spare parts, and accessories therefore; specialized equipment; 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, \$18,641,249,000, to remain available for obligation until September 30, 2022.

FY 2020 Overseas Contingency Operations funding can be separated into the following categories:

- OCO for Direct War Costs (\$102,211,000): Direct War costs are those combat or direct combat support costs that will not continue to be expended once combat operations end at major contingency locations.
- OCO for Enduring Requirements (\$16,834,000): OCO for Enduring Requirements are enduring in-theater and in-CONUS costs that will likely remain after combat operations cease, and have previously been funded in OCO.
- OCO for Base Requirements (\$0): OCO for Base Requirements is OCO funding for base budget requirements in support of the National Defense Strategy. The Budget requests these funds in OCO to comply with the base budget defense caps included in the Budget Control Act of 2011.

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation -----	FY 2018 (Base + OCO) -----	FY 2019 Base Enacted -----	FY 2019 OCO Enacted -----	FY 2019 Total Enacted -----
Aircraft Procurement, Navy	20,103,259	20,092,199	232,119	20,324,318
Total Department of the Navy	20,103,259	20,092,199	232,119	20,324,318

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Department of the Navy
 FY 2020 President's Budget
 Exhibit P-1 FY 2020 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

Appropriation -----	FY 2020 Base -----	FY 2020 OCO for Base Requirements -----	FY 2020 OCO for Direct War and Enduring Costs -----	FY 2020 Total OCO -----
Aircraft Procurement, Navy	18,522,204		119,045	119,045
Total Department of the Navy	18,522,204		119,045	119,045

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation -----	FY 2020 Total (Base + OCO) -----
Aircraft Procurement, Navy	18,641,249
Total Department of the Navy	18,641,249

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: Aircraft Procurement, Navy

Budget Activity -----	FY 2018 (Base + OCO) -----	FY 2019 Base Enacted -----	FY 2019 OCO Enacted -----	FY 2019 Total Enacted -----
01. Combat Aircraft	13,090,227	13,006,745	152,000	13,158,745
02. Airlift Aircraft	207,000			
03. Trainer Aircraft				
04. Other Aircraft	1,189,372	1,604,927	35,065	1,639,992
05. Modification of Aircraft	2,927,345	3,071,125	45,054	3,116,179
06. Aircraft Spares and Repair Parts	2,195,764	1,880,420		1,880,420
07. Aircraft Support Equip & Facilities	493,551	528,982		528,982
Total Aircraft Procurement, Navy	20,103,259	20,092,199	232,119	20,324,318

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: Aircraft Procurement, Navy

Budget Activity -----	FY 2020 Base -----	FY 2020 OCO for Base Requirements -----	FY 2020 OCO for Direct War and Enduring Costs -----	FY 2020 Total OCO -----
01. Combat Aircraft	10,270,201			
02. Airlift Aircraft				
03. Trainer Aircraft	261,160			
04. Other Aircraft	1,586,693		84,921	84,921
05. Modification of Aircraft	3,497,284		34,124	34,124
06. Aircraft Spares and Repair Parts	2,166,788			
07. Aircraft Support Equip & Facilities	740,078			
Total Aircraft Procurement, Navy	18,522,204		119,045	119,045

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Department of the Navy
 FY 2020 President's Budget
 Exhibit P-1 FY 2020 President's Budget
 Total Obligational Authority
 (Dollars in Thousands)

Appropriation: Aircraft Procurement, Navy

Budget Activity -----	FY 2020 Total (Base + OCO) -----
01. Combat Aircraft	10,270,201
02. Airlift Aircraft	
03. Trainer Aircraft	261,160
04. Other Aircraft	1,671,614
05. Modification of Aircraft	3,531,408
06. Aircraft Spares and Repair Parts	2,166,788
07. Aircraft Support Equip & Facilities	740,078
Total Aircraft Procurement, Navy	18,641,249

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity Cost	FY 2019 Base Enacted Quantity Cost	FY 2019 OCO Enacted Quantity Cost	FY 2019 Total Enacted Quantity Cost	S e c
Budget Activity 01: Combat Aircraft							
Combat Aircraft							
1	F/A-18E/F (Fighter) Hornet	A	24 (1,826,192)	24 (1,922,275)		24 (1,922,275)	U
	Less: Advance Procurement (PY)			(-52,971)		(-52,971)	U
			1,826,192	1,869,304		1,869,304	
2	F/A-18E/F (Fighter) Hornet						
	Advance Procurement (CY)		52,971	53,977		53,977	U
	C (FY 2018 for FY 2019) (M)		(52,971)				
	C (FY 2019 for FY 2020) (M)			(53,977)		(53,977)	
	C (FY 2020 for FY 2021) (M)						
3	Joint Strike Fighter CV	A	10 (1,434,932)	15 (2,150,369)		15 (2,150,369)	U
	Less: Advance Procurement (PY)		(-80,908)	(-196,411)		(-196,411)	U
			1,354,024	1,953,958		1,953,958	
4	Joint Strike Fighter CV						
	Advance Procurement (CY)		263,112	140,010		140,010	U
	C (FY 2018 for FY 2019) (M)		(196,411)				
	C (FY 2018 for FY 2020) (M)		(66,701)				
	C (FY 2019 for FY 2020) (M)			(140,010)		(140,010)	
	C (FY 2020 for FY 2021) (M)						
	C (FY 2020 for FY 2022) (M)						
	C (FY 2020 for FY 2023) (M)						

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	FY 2020 Base Cost	FY 2020 OCO for Base Requirements Quantity	FY 2020 OCO for Base Requirements Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	FY 2020 OCO for Direct War and Enduring Costs Cost	FY 2020 Total OCO Quantity	FY 2020 Total OCO Cost	S e c
Budget Activity 01: Combat Aircraft											
Combat Aircraft											
1	F/A-18E/F (Fighter) Hornet	A	24	(1,802,911)							U
	Less: Advance Procurement (PY)			(-53,977)							U
				1,748,934							
2	F/A-18E/F (Fighter) Hornet										
	Advance Procurement (CY)			55,128							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(55,128)							
3	Joint Strike Fighter CV	A	20	(2,479,012)							U
	Less: Advance Procurement (PY)			(-206,711)							U
				2,272,301							
4	Joint Strike Fighter CV										
	Advance Procurement (CY)			339,053							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(280,530)							
	C (FY 2020 for FY 2022) (M)			(30,834)							
	C (FY 2020 for FY 2023) (M)			(27,689)							

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO)		S e c -
			Quantity	Cost	
Budget Activity 01: Combat Aircraft					
Combat Aircraft					
1	F/A-18E/F (Fighter) Hornet	A	24	(1,802,911)	U
	Less: Advance Procurement (PY)			(-53,977)	U
				1,748,934	
2	F/A-18E/F (Fighter) Hornet				
	Advance Procurement (CY)			55,128	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(55,128)	
3	Joint Strike Fighter CV	A	20	(2,479,012)	U
	Less: Advance Procurement (PY)			(-206,711)	U
				2,272,301	
4	Joint Strike Fighter CV				
	Advance Procurement (CY)			339,053	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2018 for FY 2020) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(280,530)	
	C (FY 2020 for FY 2022) (M)			(30,834)	
	C (FY 2020 for FY 2023) (M)			(27,689)	

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO)		FY 2019 Base Enacted		FY 2019 OCO Enacted		FY 2019 Total Enacted		S e
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	c
5	JSF STOVL		24	(3,185,195)	22	(2,850,311)			22	(2,850,311)	U
	Less: Advance Procurement (PY)			(-233,648)		(-322,264)				(-322,264)	U
				-----		-----		-----		-----	
				2,951,547		2,528,047				2,528,047	
6	JSF STOVL										
	Advance Procurement (CY)			413,450		228,492				228,492	U
	C (FY 2018 for FY 2019) (M)			(322,264)							
	C (FY 2018 for FY 2020) (M)			(91,186)							
	C (FY 2019 for FY 2020) (M)					(228,492)				(228,492)	
	C (FY 2020 for FY 2021) (M)										
	C (FY 2020 for FY 2022) (M)										
	C (FY 2020 for FY 2023) (M)										
7	CH-53K (Heavy Lift)	A	6	(874,474)	8	(1,154,645)			8	(1,154,645)	U
	Less: Advance Procurement (PY)			(-71,869)		(-147,046)				(-147,046)	U
				-----		-----		-----		-----	
				802,605		1,007,599				1,007,599	
8	CH-53K (Heavy Lift)										
	Advance Procurement (CY)			147,046		161,079				161,079	U
	C (FY 2018 for FY 2019) (M)			(147,046)							
	C (FY 2019 for FY 2020) (M)					(161,079)				(161,079)	
	C (FY 2020 for FY 2021) (M)										
9	V-22 (Medium Lift)		14	(1,275,138)	11	(1,005,726)	2	(152,000)	13	(1,157,726)	U
	Less: Advance Procurement (PY)			(-19,674)		(-23,389)				(-23,389)	U
				-----		-----		-----		-----	
				1,255,464		982,337		152,000		1,134,337	
10	V-22 (Medium Lift)										
	Advance Procurement (CY)			23,389		28,755				28,755	U
	C (FY 2018 for FY 2019) (M)			(23,389)							
	C (FY 2019 for FY 2020) (M)					(28,755)				(28,755)	
	C (FY 2020 for FY 2021) (M)										

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Department of the Navy
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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	Cost	FY 2020 OCO for Base Requirements Quantity	Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	Cost	FY 2020 Total OCO Quantity	Cost	S e c
----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
5	JSF STOVL		10	(1,661,713)							U
	Less: Advance Procurement (PY)			(-319,678)							U
				-----		-----		-----		-----	
				1,342,035							
6	JSF STOVL										
	Advance Procurement (CY)			291,804							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2018 for FY 2020) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(249,554)							
	C (FY 2020 for FY 2022) (M)			(21,125)							
	C (FY 2020 for FY 2023) (M)			(21,125)							
7	CH-53K (Heavy Lift)	A	6	(968,955)							U
	Less: Advance Procurement (PY)			(-161,079)							U
				-----		-----		-----		-----	
				807,876							
8	CH-53K (Heavy Lift)										
	Advance Procurement (CY)			215,014							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(215,014)							
9	V-22 (Medium Lift)		10	(995,421)							U
	Less: Advance Procurement (PY)			(-28,755)							U
				-----		-----		-----		-----	
				966,666							
10	V-22 (Medium Lift)										
	Advance Procurement (CY)			27,104							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(27,104)							

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO) Quantity	Cost	S e c
----	-----	-----	-----	-----	-----
5	JSF STOVL		10	(1,661,713)	U
	Less: Advance Procurement (PY)			(-319,678)	U

				1,342,035	
6	JSF STOVL				
	Advance Procurement (CY)			291,804	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2018 for FY 2020) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(249,554)	
	C (FY 2020 for FY 2022) (M)			(21,125)	
	C (FY 2020 for FY 2023) (M)			(21,125)	
7	CH-53K (Heavy Lift)	A	6	(968,955)	U
	Less: Advance Procurement (PY)			(-161,079)	U

				807,876	
8	CH-53K (Heavy Lift)				
	Advance Procurement (CY)			215,014	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(215,014)	
9	V-22 (Medium Lift)		10	(995,421)	U
	Less: Advance Procurement (PY)			(-28,755)	U

				966,666	
10	V-22 (Medium Lift)				
	Advance Procurement (CY)			27,104	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(27,104)	

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity Cost	FY 2019 Base Enacted Quantity Cost	FY 2019 OCO Enacted Quantity Cost	FY 2019 Total Enacted Quantity Cost	S e c
11	H-1 Upgrades (UH-1Y/AH-1Z) Less: Advance Procurement (PY)	A	29 (938,961) (-49,194)	25 (840,437) (-42,082)		25 (840,437) (-42,082)	U
			889,767	798,355		798,355	
12	H-1 Upgrades (UH-1Y/AH-1Z) Advance Procurement (CY) C (FY 2018 for FY 2019) (M)		42,082 (42,082)				U
13	MH-60R (MYP)	A	8 400,000				U
14	P-8A Poseidon Less: Advance Procurement (PY)	A	10 (1,840,515) (-130,873)	10 (1,908,367) (-146,614)		10 (1,908,367) (-146,614)	U
			1,709,642	1,761,753		1,761,753	
15	P-8A Poseidon Advance Procurement (CY) C (FY 2018 for FY 2019) (M) C (FY 2019 for FY 2020) (M)		140,600 (140,600)	180,000 (180,000)		180,000 (180,000)	U
16	E-2D Adv Hawkeye Less: Advance Procurement (PY)	A	5 (987,313) (-271,003)	6 (1,174,371) (-102,026)		6 (1,174,371) (-102,026)	U
			716,310	1,072,345		1,072,345	
17	E-2D Adv Hawkeye Advance Procurement (CY) C (FY 2018 for FY 2019) (M) C (FY 2019 for FY 2020) (M) C (FY 2019 for FY 2021) (M) C (FY 2019 for FY 2022) (M) C (FY 2019 for FY 2023) (M) C (FY 2020 for FY 2021) (M) C (FY 2020 for FY 2022) (M) C (FY 2020 for FY 2023) (M)		102,026 (102,026)	240,734 (126,128) (38,202) (38,202) (38,202) (38,202)		240,734 (126,128) (38,202) (38,202) (38,202)	U
Total Combat Aircraft			13,090,227	13,006,745	152,000	13,158,745	

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	FY 2020 Base Cost	FY 2020 OCO for Base Requirements Quantity	FY 2020 OCO for Base Requirements Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	FY 2020 OCO for Direct War and Enduring Costs Cost	FY 2020 Total OCO Quantity	FY 2020 Total OCO Cost	Se
----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
11	H-1 Upgrades (UH-1Y/AH-1Z)	A		(62,003)							U
	Less: Advance Procurement (PY)										U
				-----		-----		-----		-----	
				62,003							
12	H-1 Upgrades (UH-1Y/AH-1Z)										U
	Advance Procurement (CY)										
	C (FY 2018 for FY 2019) (M)										
13	MH-60R (MYP)	A		894							U
14	P-8A Poseidon	A	6	(1,386,701)							U
	Less: Advance Procurement (PY)			(-180,000)							U
				-----		-----		-----		-----	
				1,206,701							
15	P-8A Poseidon										U
	Advance Procurement (CY)										
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
16	E-2D Adv Hawkeye	A	4	(870,612)							U
	Less: Advance Procurement (PY)			(-126,128)							U
				-----		-----		-----		-----	
				744,484							
17	E-2D Adv Hawkeye										U
	Advance Procurement (CY)										
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2019 for FY 2021) (M)										
	C (FY 2019 for FY 2022) (M)										
	C (FY 2019 for FY 2023) (M)										
	C (FY 2020 for FY 2021) (M)										
	C (FY 2020 for FY 2022) (M)			(122,290)							
	C (FY 2020 for FY 2022) (M)			(33,957)							
	C (FY 2020 for FY 2023) (M)			(33,957)							
				-----		-----		-----		-----	
	Total Combat Aircraft			10,270,201							

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO)	S e c
-----	-----	-----	Quantity Cost	-----
11	H-1 Upgrades (UH-1Y/AH-1Z)	A	(62,003)	U
	Less: Advance Procurement (PY)		-----	U
			62,003	
12	H-1 Upgrades (UH-1Y/AH-1Z)			
	Advance Procurement (CY)			U
	C (FY 2018 for FY 2019) (M)			
13	MH-60R (MYP)	A	894	U
14	P-8A Poseidon	A	6 (1,386,701)	U
	Less: Advance Procurement (PY)		(-180,000)	U

			1,206,701	
15	P-8A Poseidon			
	Advance Procurement (CY)			U
	C (FY 2018 for FY 2019) (M)			
	C (FY 2019 for FY 2020) (M)			
16	E-2D Adv Hawkeye	A	4 (870,612)	U
	Less: Advance Procurement (PY)		(-126,128)	U

			744,484	
17	E-2D Adv Hawkeye			
	Advance Procurement (CY)		190,204	U
	C (FY 2018 for FY 2019) (M)			
	C (FY 2019 for FY 2020) (M)			
	C (FY 2019 for FY 2021) (M)			
	C (FY 2019 for FY 2022) (M)			
	C (FY 2019 for FY 2023) (M)			
	C (FY 2020 for FY 2021) (M)		(122,290)	
	C (FY 2020 for FY 2022) (M)		(33,957)	
	C (FY 2020 for FY 2023) (M)		(33,957)	

Total Combat Aircraft			10,270,201	

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO)		FY 2019 Base Enacted		FY 2019 OCO Enacted		FY 2019 Total Enacted		S e c
----	-----	-----	Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	-----
Budget Activity 02: Airlift Aircraft											

Airlift Aircraft											
18	C-40A	A	2	207,000							U
				-----		-----		-----		-----	
Total Airlift Aircraft				207,000							
Budget Activity 03: Trainer Aircraft											

Trainer Aircraft											
19	Advanced Helicopter Training System	A									U
				-----		-----		-----		-----	
Total Trainer Aircraft											
Budget Activity 04: Other Aircraft											

Other Aircraft											
20	KC-130J	A	6	(501,125)	2	(175,930)			2	(175,930)	U
Less: Advance Procurement (PY)				(-28,848)		(-25,497)				(-25,497)	U
				-----		-----		-----		-----	
				472,277		150,433				150,433	
21	KC-130J										
Advance Procurement (CY)				25,497		102,013				102,013	U
C (FY 2018 for FY 2019) (M)				(25,497)							
C (FY 2019 for FY 2020) (M)						(26,013)				(26,013)	
C (FY 2019 for FY 2021) (M)						(20,000)				(20,000)	
C (FY 2019 for FY 2022) (M)						(24,000)				(24,000)	
C (FY 2019 for FY 2023) (M)						(32,000)				(32,000)	
C (FY 2020 for FY 2021) (M)											
22	F-5	A									U

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Department of the Navy
FY 2020 President's Budget
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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base		FY 2020 OCO for Base Requirements		FY 2020 OCO for Direct War and Enduring Costs		FY 2020 Total OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Airlift Aircraft											
Airlift Aircraft											
18	C-40A	A									U
Total Airlift Aircraft											
Budget Activity 03: Trainer Aircraft											
Trainer Aircraft											
19	Advanced Helicopter Training System	A	32	261,160							U
Total Trainer Aircraft				261,160							
Budget Activity 04: Other Aircraft											
Other Aircraft											
20	KC-130J	A	3	(266,853)							U
	Less: Advance Procurement (PY)			(-26,013)							U
				240,840							
21	KC-130J										
	Advance Procurement (CY)			66,061							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2019 for FY 2021) (M)										
	C (FY 2019 for FY 2022) (M)										
	C (FY 2019 for FY 2023) (M)										
	C (FY 2020 for FY 2021) (M)			(66,061)							
22	F-5	A	22	39,676							U

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line				FY 2020	
No	Item Nomenclature	Ident		Total	S
----	-----	Code	Quantity	(Base + OCO) Cost	e
		-----	-----	-----	-
Budget Activity 02: Airlift Aircraft					

Airlift Aircraft					
18	C-40A	A			U

Total Airlift Aircraft					
Budget Activity 03: Trainer Aircraft					

Trainer Aircraft					
19	Advanced Helicopter Training System	A	32	261,160	U

Total Trainer Aircraft					
				261,160	
Budget Activity 04: Other Aircraft					

Other Aircraft					
20	KC-130J	A	3	(266,853)	U
	Less: Advance Procurement (PY)			(-26,013)	U

				240,840	
21	KC-130J				
	Advance Procurement (CY)			66,061	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2019 for FY 2021) (M)				
	C (FY 2019 for FY 2022) (M)				
	C (FY 2019 for FY 2023) (M)				
	C (FY 2020 for FY 2021) (M)			(66,061)	
22	F-5	A	22	39,676	U

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity	Cost	FY 2019 Base Enacted Quantity	Cost	FY 2019 OCO Enacted Quantity	Cost	FY 2019 Total Enacted Quantity	Cost	S e c
----	-----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----
23	MQ-4 Triton	A	3	(551,192)	3	(601,283)			3	(601,283)	U
	Less: Advance Procurement (PY)			(-55,652)		(-57,266)				(-57,266)	U
				-----		-----		-----		-----	
				495,540		544,017				544,017	
24	MQ-4 Triton										
	Advance Procurement (CY)			57,266		58,522				58,522	U
	C (FY 2018 for FY 2019) (M)			(57,266)							
	C (FY 2019 for FY 2020) (M)					(58,522)				(58,522)	
	C (FY 2020 for FY 2021) (M)										
25	MQ-8 UAV	B	6	128,812		89,061				89,061	U
26	STUASLO UAV			9,980		11,866		35,065		46,931	U
27	MQ-9A Reaper	A									U
28	VH-92A Executive Helo				6	649,015			6	649,015	U
				-----		-----		-----		-----	
	Total Other Aircraft			1,189,372		1,604,927		35,065		1,639,992	
Budget Activity 05: Modification of Aircraft											

Modification of Aircraft											
29	AEA Systems			49,729		40,277				40,277	U
30	AV-8 Series	A		41,762		58,577				58,577	U
31	Adversary	A		2,565		14,606				14,606	U
32	F-18 Series	A		1,007,030		1,159,675				1,159,675	U
33	H-53 Series	A		39,125		70,997				70,997	U
34	MH-60 Series	A		99,111		125,862		4,858		130,720	U
35	H-1 Series	A		99,124		87,143				87,143	U

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Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	Cost	FY 2020 OCO for Base Requirements Quantity	Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	Cost	FY 2020 Total OCO Quantity	Cost	S e c
23	MQ-4 Triton	A	2	(531,656)							U
	Less: Advance Procurement (PY)			(-58,522)							U
				-----		-----		-----			
				473,134							
24	MQ-4 Triton										
	Advance Procurement (CY)			20,139							U
	C (FY 2018 for FY 2019) (M)										
	C (FY 2019 for FY 2020) (M)										
	C (FY 2020 for FY 2021) (M)			(20,139)							
25	MQ-8 UAV	B		44,957							U
26	STUASLO UAV			43,819			7,921		7,921		U
27	MQ-9A Reaper	A					3	77,000	3	77,000	U
28	VH-92A Executive Helo		6	658,067							U
				-----		-----		-----		-----	
	Total Other Aircraft			1,586,693				84,921		84,921	

Budget Activity 05: Modification of Aircraft

Modification of Aircraft

29	AEA Systems			44,470							U
30	AV-8 Series	A		39,472							U
31	Adversary	A		3,415							U
32	F-18 Series	A		1,207,089							U
33	H-53 Series	A		68,385							U
34	MH-60 Series	A		149,797							U
35	H-1 Series	A		114,059							U

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Department of the Navy
FY 2020 President's Budget
Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO) Quantity	Cost	S e c
----	-----	-----	-----	-----	-----
23	MQ-4 Triton	A	2	(531,656)	U
	Less: Advance Procurement (PY)			(-58,522)	U

				473,134	
24	MQ-4 Triton				
	Advance Procurement (CY)			20,139	U
	C (FY 2018 for FY 2019) (M)				
	C (FY 2019 for FY 2020) (M)				
	C (FY 2020 for FY 2021) (M)			(20,139)	
25	MQ-8 UAV	B		44,957	U
26	STUASLO UAV			51,740	U
27	MQ-9A Reaper	A	3	77,000	U
28	VH-92A Executive Helo		6	658,067	U

	Total Other Aircraft			1,671,614	
Budget Activity 05: Modification of Aircraft					

Modification of Aircraft					
29	AEA Systems			44,470	U
30	AV-8 Series	A		39,472	U
31	Adversary	A		3,415	U
32	F-18 Series	A		1,207,089	U
33	H-53 Series	A		68,385	U
34	MH-60 Series	A		149,797	U
35	H-1 Series	A		114,059	U

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Exhibit P-1 FY 2020 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity Cost	FY 2019 Base Enacted Quantity Cost	FY 2019 OCO Enacted Quantity Cost	FY 2019 Total Enacted Quantity Cost	S e c
----	-----	----	-----	-----	-----	-----	-
36	EP-3 Series	A	14,451	3,633	5,380	9,013	U
37	P-3 Series	A	700	803		803	U
38	E-2 Series	A	65,474	82,980		82,980	U
39	Trainer A/C Series	A	8,101	11,660		11,660	U
40	C-2A	A	18,592	8,327		8,327	U
41	C-130 Series	A	204,444	70,537		70,537	U
42	FEWSG	A	630	597		597	U
43	Cargo/Transport A/C Series	A	10,075	8,932		8,932	U
44	E-6 Series	A	194,391	164,511		164,511	U
45	Executive Helicopters Series	A	31,787	23,566		23,566	U
46	Special Project Aircraft	A	28,159	7,620	2,165	9,785	U
47	T-45 Series	A	164,191	193,567		193,567	U
48	Power Plant Changes	A	23,587	21,521		21,521	U
49	JPATS Series	A	24,907	26,470		26,470	U
50	Aviation Life Support Mods	A		15,864		15,864	U
51	Common ECM Equipment	A	226,998	185,218	9,820	195,038	U
52	Common Avionics Changes	A	107,249	117,551		117,551	U
53	Common Defensive Weapon System	A	2,317	1,994	3,206	5,200	U
54	ID Systems	A	49,443	39,196		39,196	U
55	P-8 Series		14,783	67,416		67,416	U

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	Cost	FY 2020 OCO for Base Requirements Quantity	Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	Cost	FY 2020 Total OCO Quantity	Cost	S e c
----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-
36	EP-3 Series	A		8,655			5,488		5,488		U
37	P-3 Series	A									U
38	E-2 Series	A		117,059							U
39	Trainer A/C Series	A		5,616							U
40	C-2A	A		15,747							U
41	C-130 Series	A		122,671							U
42	FEWSG	A		509							U
43	Cargo/Transport A/C Series	A		8,767							U
44	E-6 Series	A		169,827							U
45	Executive Helicopters Series	A		8,933							U
46	Special Project Aircraft	A				3,498		3,498			U
47	T-45 Series	A		186,022							U
48	Power Plant Changes	A		16,136							U
49	JPATS Series	A		21,824							U
50	Aviation Life Support Mods	A		39,762							U
51	Common ECM Equipment	A		162,839		3,406		3,406			U
52	Common Avionics Changes	A		102,107							U
53	Common Defensive Weapon System	A		2,100		3,274		3,274			U
54	ID Systems	A		41,437							U
55	P-8 Series			107,539							U

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Total Obligational Authority
(Dollars in Thousands)

Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO) Quantity	Cost	S e c
----	-----	-----	-----	-----	-----
36	EP-3 Series	A		14,143	U
37	P-3 Series	A			U
38	E-2 Series	A		117,059	U
39	Trainer A/C Series	A		5,616	U
40	C-2A	A		15,747	U
41	C-130 Series	A		122,671	U
42	FEWSG	A		509	U
43	Cargo/Transport A/C Series	A		8,767	U
44	E-6 Series	A		169,827	U
45	Executive Helicopters Series	A		8,933	U
46	Special Project Aircraft	A		3,498	U
47	T-45 Series	A		186,022	U
48	Power Plant Changes	A		16,136	U
49	JPATS Series	A		21,824	U
50	Aviation Life Support Mods	A		39,762	U
51	Common ECM Equipment	A		166,245	U
52	Common Avionics Changes	A		102,107	U
53	Common Defensive Weapon System	A		5,374	U
54	ID Systems	A		41,437	U
55	P-8 Series			107,539	U

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Total Obligational Authority
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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity Cost	FY 2019 Base Enacted Quantity Cost	FY 2019 OCO Enacted Quantity Cost	FY 2019 Total Enacted Quantity Cost	S e c
----	-----	----	-----	-----	-----	-----	-
56	MAGTF EW for Aviation	A	10,111	11,590		11,590	U
57	MQ-8 Series		22,593	37,907		37,907	U
58	V-22 (Tilt/Rotor ACFT) Osprey	B	222,524	197,993		197,993	U
59	Next Generation Jammer (NGJ)	A					U
60	F-35 STOVL Series	A	34,963	36,618		36,618	U
61	F-35 CV Series	A	31,689	21,236		21,236	U
62	QRC	A	39,916	101,499	2,410	103,909	U
63	MQ-4 Series	A	13,296	48,278		48,278	U
64	RQ-21 Series	A		6,904	17,215	24,119	U
65	DON Other 4 (TTNT)	A	21,381				U
66	DON Other 6 (TTNT)	A	2,147				U
	Total Modification of Aircraft		2,927,345	3,071,125	45,054	3,116,179	
Budget Activity 06: Aircraft Spares and Repair Parts							

Aircraft Spares and Repair Parts							
67	Spares and Repair Parts	A	2,195,764	1,880,420		1,880,420	U
	Total Aircraft Spares and Repair Parts		2,195,764	1,880,420		1,880,420	
Budget Activity 07: Aircraft Support Equip & Facilities							

Aircraft Support Equip & Facilities							
68	Common Ground Equipment	A	376,920	409,494		409,494	U

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Total Obligational Authority
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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	Cost	FY 2020 OCO for Base Requirements Quantity	Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	Cost	FY 2020 Total OCO Quantity	Cost	S e c
----	-----	----	-----	----	-----	----	-----	----	-----	----	-
56	MAGTF EW for Aviation	A		26,536							U
57	MQ-8 Series			34,686							U
58	V-22 (Tilt/Rotor ACFT) Osprey	B		325,367							U
59	Next Generation Jammer (NGJ)	A		6,223							U
60	F-35 STOVL Series	A		65,585							U
61	F-35 CV Series	A		15,358							U
62	QRC	A		165,016			18,458		18,458		U
63	MQ-4 Series	A		27,994							U
64	RQ-21 Series	A		66,282							U
65	DON Other 4 (TTNT)	A									U
66	DON Other 6 (TTNT)	A									U
	Total Modification of Aircraft			3,497,284			34,124		34,124		
Budget Activity 06: Aircraft Spares and Repair Parts											

Aircraft Spares and Repair Parts											
67	Spares and Repair Parts	A		2,166,788							U
	Total Aircraft Spares and Repair Parts			2,166,788							
Budget Activity 07: Aircraft Support Equip & Facilities											

Aircraft Support Equip & Facilities											
68	Common Ground Equipment	A		491,025							U

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Total Obligational Authority
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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO) Quantity	Cost	S e c
----	-----	-----	-----	-----	-----
56	MAGTF EW for Aviation	A		26,536	U
57	MQ-8 Series			34,686	U
58	V-22 (Tilt/Rotor ACFT) Osprey	B		325,367	U
59	Next Generation Jammer (NGJ)	A		6,223	U
60	F-35 STOVL Series	A		65,585	U
61	F-35 CV Series	A		15,358	U
62	QRC	A		183,474	U
63	MQ-4 Series	A		27,994	U
64	RQ-21 Series	A		66,282	U
65	DON Other 4 (TTNT)	A			U
66	DON Other 6 (TTNT)	A			U
	Total Modification of Aircraft			3,531,408	
Budget Activity 06: Aircraft Spares and Repair Parts					

Aircraft Spares and Repair Parts					
67	Spares and Repair Parts	A		2,166,788	U
	Total Aircraft Spares and Repair Parts			2,166,788	
Budget Activity 07: Aircraft Support Equip & Facilities					

Aircraft Support Equip & Facilities					
68	Common Ground Equipment	A		491,025	U

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Total Obligational Authority
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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 (Base + OCO) Quantity Cost	FY 2019 Base Enacted Quantity Cost	FY 2019 OCO Enacted Quantity Cost	FY 2019 Total Enacted Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-----	-
69	Aircraft Industrial Facilities	A	25,076	24,496		24,496	U
70	War Consumables	A	39,614	42,108		42,108	U
71	Other Production Charges	A	1,463	1,444		1,444	U
72	Special Support Equipment	A	48,500	49,489		49,489	U
73	First Destination Transportation	A	1,976	1,951		1,951	U
74	Cancelled Account Adjustments	A	2				U
			-----	-----	-----	-----	
	Total Aircraft Support Equip & Facilities		493,551	528,982		528,982	
			-----	-----	-----	-----	
	Total Aircraft Procurement, Navy		20,103,259	20,092,199	232,119	20,324,318	

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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Base Quantity	Cost	FY 2020 OCO for Base Requirements Quantity	Cost	FY 2020 OCO for Direct War and Enduring Costs Quantity	Cost	FY 2020 Total OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
69	Aircraft Industrial Facilities	A		71,335							U
70	War Consumables	A		41,086							U
71	Other Production Charges	A									U
72	Special Support Equipment	A		135,740							U
73	First Destination Transportation	A		892							U
74	Cancelled Account Adjustments	A									U
				-----		-----		-----		-----	
	Total Aircraft Support Equip & Facilities			740,078							
				-----		-----		-----		-----	
	Total Aircraft Procurement, Navy			18,522,204				119,045		119,045	

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Appropriation: 1506N Aircraft Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2020 Total (Base + OCO) Quantity	Cost	S e c
----	-----	-----	-----	-----	-----
69	Aircraft Industrial Facilities	A	71,335	U	
70	War Consumables	A	41,086	U	
71	Other Production Charges	A		U	
72	Special Support Equipment	A	135,740	U	
73	First Destination Transportation	A	892	U	
74	Cancelled Account Adjustments	A		U	

	Total Aircraft Support Equip & Facilities		740,078		

	Total Aircraft Procurement, Navy		18,641,249		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0513 / AEA 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: N/A												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	330.530	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	745.030
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	330.530	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	745.030
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	330.530	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	745.030
<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: This line item funds modifications to Airborne Electronic Attack (AEA) products used on multiple platforms. Modifications budgeted and programmed include: procurement and enhancement of the AN/ALQ-99 Tactical Jamming System (TJS) and Low Band Transmitter Antenna Group (LBT AG) inventory, AN/ALQ-99 TJS upgrades and related sustainability, capability, and viability modifications. AEA will support procurement of new technologies and equipment as needed to combat emerging and evolving electronic warfare technology and systems.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0513 / AEA 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: N/A									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11) (RELIABILITY / MISSION CAPABILITY)				- / 318.130	- / 49.729	- / 40.277	- / 44.470	- / 0.000	- / 44.470
P-3a	2 / Inactive OSIPS (RELIABILITY / MISSION CAPABILITY)				- / 12.400	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 330.530	- / 49.729	- / 40.277	- / 44.470	- / 0.000	- / 44.470

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11) (RELIABILITY / MISSION CAPABILITY)				- / 56.307	- / 58.592	- / 57.933	- / 59.417	- / 47.775	- / 732.630
P-3a	2 / Inactive OSIPS (RELIABILITY / MISSION CAPABILITY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 12.400
P-40	Total Gross/Weapon System Cost				- / 56.307	- / 58.592	- / 57.933	- / 59.417	- / 47.775	- / 745.030

*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 Department of the Navy has been tasked with accomplishing the Nation's AEA mission in various theaters of operation over the last few decades. The AEA capability fielded by the Navy on the EA-18G Growler and EA-6B Prowler has been a high demand, low density asset. The Navy and Marine Corps are transitioning away from the EA-6B Prowler aircraft; the Navy has transitioned to the EA-18G Growler aircraft and the Marine Corps is transitioning to an organic capability utilizing electronic warfare payloads flown on Marine Corps aircraft. Stable investment in AEA systems will ensure continued availability of AEA capability to meet warfighter demand. Investment in the AN/ALQ-99 TJS will ensure continued system availability until Next Generation Jammer (NGJ) achieves Full Operational Capability across all bands of the Electromagnetic Spectrum (EMS).

AEA System procurements and related efforts are required to combat emerging electronic warfare technology and systems. Investment in AEA System efforts will ensure that sufficient AEA capability is available to meet warfighter requirements.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0513 / AEA Systems					Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	318.130	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	732.630
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	318.130	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	732.630
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	318.130	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	732.630
<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: This Operational and Safety Improvement Program covers system modifications required to improve AN/ALQ-99 reliability, maintainability, availability, resolve obsolescence issues, and correct deficiencies found in testing or in the field. Engineering changes are needed to enhance mission capability and integration of evolving Electronic Warfare systems to address increased mission requirements and emerging threats in support of EA-6B and EA-18G aircraft. The out of production transmitter inventory is static and is being stretched due to increasing electronic warfare aircraft numbers and mission requirements. The AN/ALQ-99 TJS consists of six transmitters that are mission configurable depending on target threat. Reconstitution of reclaimed United States Air Force (USAF) EF-111 Band 4 through 8 transmitters to United States Navy (USN) configuration will alleviate significant jammer inventory shortfalls for EA-6B and EA-18G platforms. B KITS: AN/ALQ-99 TJS hardware procurements include Hardback, Pod Interface Unit (PIU), the Universal Exciter Upgrade (UEU), Low Band Transmitter Antenna Group (LBT AG), Band 2, Band 4, Band 5/6, Band 7, Band 8 and Band 9/10 Transmitters and Antennas, Vertical Polarized (VPOL) Antenna, Batwing Air-to-Air Reflector for the Band 9/10 Transmitter, Low Band Consolidation (LBC), and Radomes to include procurement of EA-18G Extended Low Band Radome (GELBR) and Universal High Band Radome (UHBR). INSTALLATION EQUIPMENT N/R: AN/ALQ-99 TJS obsolescence mitigation efforts, capability and reliability enhancements require non-recurring engineering for AN/ALQ-99 TJS components such as the Hardback, PIU, the UEU, LBT AG, Band 2, Band 4, Band 5/6, Band 7, Band 8 and Band 9/10 Transmitters and Antennas. Efforts planned for FY 2020 and FY 2021 include additional engineering and production testing for the consolidation of the Low Band Transmitter and Band 4 Transmitter into a single form factor with production commencing in FY 2021, referred to as LBC. SUPPORT EQUIPMENT: Introduction of new/modified AN/ALQ-99 pod equipment requires new/modified organizational, intermediate, and depot level support equipment; such as modifications and additions to the AN/ALQ-99 pod test set to support LBT AG, modifications to the High Power Device Test Set to extend frequency coverage to test Band 9/10 Transmitters, and efforts to re-engineer and procure Nondestructive (NDI) eddy current inspection set, De-air Fluid Cooling System (DFCS), Enhanced Tactical Pod Tester (E-TPT), and LBC Operational Test Program Set (OTPS). Required changes to existing support equipment will improve reliability, maintainability, availability, address obsolescence issues, and correct deficiencies found in testing or in the field. Additionally, funds will provide depot support equipment in order to resolve AN/ALQ-99 readiness degraders. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: LBC scheduled to begin production in FY 2021.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0513 / AEA Systems				Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MULTIPLE PLATFORMS				Modification Type: RELIABILITY / MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)													
B Kits													
Recurring													
2.1.1) Transmitters - Organic ⁽¹⁾	60 / 17.057	86 / 12.615	4 / 1.928	2 / 0.964	- / -	2 / 0.964	- / -	- / -	- / -	- / -	44 / 37.734	196 / 70.298	
2.1.2) Vertical Polarized (VPOL) Antenna - Organic ⁽²⁾	- / -	- / -	- / -	189 / 8.257	- / -	189 / 8.257	- / -	- / -	- / -	- / -	- / -	189 / 8.257	
2.1.3) Radomes - Organic	30 / 3.940	30 / 5.026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 8.966	
2.1.4) Low Band Consolidation (LBC) - Organic	- / -	- / -	- / -	- / -	- / -	- / -	63 / 44.500	69 / 49.713	69 / 49.887	69 / 50.885	- / -	270 / 194.985	
2.1.5) Batwing Reflector - Organic	15 / 0.030	193 / 0.394	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	208 / 0.424	
2.1.6) Cong. Add: ALQ-99 Band 6S Jammer - Organic	- / -	- / -	- / 15.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.000	
2.1.7) Archived Mods - Organic	205 / 131.642	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	205 / 131.642	
Subtotal: Recurring	- / 152.669	- / 18.035	- / 16.928	- / 9.221	- / -	- / 9.221	- / 44.500	- / 49.713	- / 49.887	- / 50.885	- / 37.734	- / 429.572	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic	- / 67.332	- / 8.694	- / 3.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 79.226	
2.2.2) Installation Equipment N/R LBC - Organic ⁽³⁾	- / 46.536	- / 4.466	- / 5.932	- / 27.043	- / -	- / 27.043	- / 3.322	- / -	- / -	- / -	- / -	- / 87.299	
Subtotal: Non-Recurring	- / 113.868	- / 13.160	- / 9.132	- / 27.043	- / -	- / 27.043	- / 3.322	- / -	- / -	- / -	- / 0.000	- / 166.525	
Subtotal: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)	310 / 266.537	309 / 31.195	4 / 26.060	191 / 36.264	- / -	191 / 36.264	63 / 47.822	69 / 49.713	69 / 49.887	69 / 50.885	44 / 37.734	1,128 / 596.097	
Subtotal: Procurement, All Modification Items	- / 266.537	- / 31.195	- / 26.060	- / 36.264	- / -	- / 36.264	- / 47.822	- / 49.713	- / 49.887	- / 50.885	- / 37.734	- / 596.097	
Support (All Modification Items)													
3.1) Engineering Change Orders	- / 8.937	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.937	
3.2) Data	- / 0.222	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.222	
3.3) Support Equipment ⁽⁴⁾	- / 16.847	- / 0.647	- / 2.887	- / 0.366	- / -	- / 0.366	- / 0.372	- / 0.380	- / 0.387	- / 0.395	- / 0.403	- / 22.684	
3.4) Integrated Logistics Support ⁽⁵⁾	- / 13.712	- / -	- / -	- / 0.986	- / -	- / 0.986	- / 1.006	- / 1.026	- / 1.046	- / 1.067	- / 1.089	- / 19.932	
3.5) Other Support	- / 11.875	- / 17.887	- / 11.330	- / 6.854	- / -	- / 6.854	- / 7.107	- / 7.473	- / 6.613	- / 7.070	- / 8.549	- / 84.758	
Subtotal: Support	- / 51.593	- / 18.534	- / 14.217	- / 8.206	- / -	- / 8.206	- / 8.485	- / 8.879	- / 8.046	- / 8.532	- / 10.041	- / 136.533	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0513 / AEA Systems				Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MULTIPLE PLATFORMS				Modification Type: RELIABILITY / MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	318.130	49.729	40.277	44.470	0.000	44.470	56.307	58.592	57.933	59.417	47.775	732.630	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0513 / AEA Systems	Modification Number / Title: 1 / Airborne Electronic Attack (AEA) Systems (OSIP 007-11)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Airborne Electronic Attack (AEA) Systems (OSIP 007-11)		
Footnotes: (1) Transmitters include procurement of Low Band Transmitter Antenna Group, Band 2, Band 4, Band 5/6, Band 7, Band 8 and Band 9/10, and antennas. Yearly unit cost varies based on type and quantity of transmitter/antenna procured. Band 5/6 were previously planned in FY 2022 and FY 2023 and are not required at this time. Based on updated readiness requirements, additional Band 7's are being procured in FY 2018, FY2019 and FY 2020. (2) Vertical Polarized (VPOL) Antenna broken out from Transmitters for budget clarity and includes procurement of antennas in FY 2020. (3) Installation Equipment N/R LBC broken out for budget clarity. FY 2020 increased due to LBC contractor and government production qualification testing. FY 2021 is final LBC government validation and verification testing. (4) Support Equipment increases in FY 2019 in support of Enhanced Tactical Pod Tester (E-TPT) obsolescence modification effort. (5) Integrated Logistics Support increases in FY 2020 for labor associated with the procurement of additional support equipment.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy

Date: March 2019

Appropriation / Budget Activity / Budget Sub Activity:
1506N / 05 / 1

P-1 Line Item Number / Title:
0513 / AEA Systems

Modification Number / Title:
2 / Inactive OSIPS

ID Code (A=Service Ready, B=Not Service Ready) :

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	12.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.400
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	12.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.400
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	12.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12.400
(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:

Inactive OSIPs prior year totals.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0514 / AV-8 Series					
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: 530												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,374.710	41.762	58.577	39.472	0.000	39.472	33.774	32.273	38.445	39.208	125.055	1,783.276
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,374.710	41.762	58.577	39.472	0.000	39.472	33.774	32.273	38.445	39.208	125.055	1,783.276
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,374.710	41.762	58.577	39.472	0.000	39.472	33.774	32.273	38.445	39.208	125.055	1,783.276
<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:

This line item funds modifications to T/AV-8B aircraft. The AV-8B is a single engine, single crew member (two crew members for the trainer variant) aircraft capable of vertical/short take-off and landing operations. The AV-8B meets the Marine Corps requirements for a light attack aircraft to provide responsive offensive air power that can operate from ships and austere forward bases in direct support of ground forces. The overall goal of the modifications budgeted in FY 2020 is to continue incorporation of Obsolescence Replacement (OR)/Readiness Management Plan (RMP) systems, electrical and structural changes; inventory sustainment and upgrade efforts to offset obsolescence and attrition; incorporation of LITENING Pod upgrades, to include a forward section upgrade, an Advanced Tactical Data Link (ATDL) and release of associated software upgrades; incorporation of AV-8B F402-RR-408 engine safety and operational changes and crypto-modernization upgrade of a digitally interoperable Link 16 capability and associated software upgrades.

The AV-8B active inventory (June 2018) consists of 4 configurations:
 16 Two-Seat T/AV-8B Aircraft
 34 Night Attack Aircraft
 54 RADAR Remanufacture Aircraft
 20 RADAR Production Aircraft

Retrofit quantities of each Engineering Change Proposal (ECP) vary by aircraft configuration type & inventory when the change was introduced into production. Retrofit quantities of each ECP also vary depending on whether the ECP applies to the airframe or an individual Weapons Replaceable Assembly. Non-recurring Engineering (NRE) varies from year to year based on complexity of ECPs and upgrades being engineered for implementation in a given year. Publications and Integrated Logistics Support (ILS) also vary from year to year based on complexity of logistics elements and number of publications required to be updated for each individual ECP.

NOTE:
 Service Life - 2028. One RADAR Remanufacture aircraft stricken from inventory in FY18.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0514 / AV-8 Series				
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: 530										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / AV-8B LITENING POD (OSIP 023-00) (Upgrade)				- / 628.960	- / 12.999	- / 25.956	- / 21.028	- / 0.000	- / 21.028
P-3a	2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04) (Upgrade)				- / 64.064	- / 3.603	- / 3.858	- / 3.392	- / 0.000	- / 3.392
P-3a	3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06) (TBD)				- / 178.243	- / 19.307	- / 25.095	- / 12.698	- / 0.000	- / 12.698
P-3a	4 / DIGITAL INTEROPERABILITY (OSIP 014-16) (Upgrade)				- / 17.552	- / 5.853	- / 3.668	- / 2.354	- / 0.000	- / 2.354
P-3a	5 / INACTIVE OSIPS (TBD)				- / 485.891	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,374.710	- / 41.762	- / 58.577	- / 39.472	- / 0.000	- / 39.472
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / AV-8B LITENING POD (OSIP 023-00) (Upgrade)				- / 18.783	- / 20.727	- / 27.214	- / 27.752	- / 77.360	- / 860.779
P-3a	2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04) (Upgrade)				- / 3.706	- / 4.461	- / 4.550	- / 4.641	- / 15.634	- / 107.909
P-3a	3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06) (TBD)				- / 7.473	- / 4.155	- / 6.681	- / 6.815	- / 32.061	- / 292.528
P-3a	4 / DIGITAL INTEROPERABILITY (OSIP 014-16) (Upgrade)				- / 3.812	- / 2.930	- / 0.000	- / 0.000	- / 0.000	- / 36.169
P-3a	5 / INACTIVE OSIPS (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 485.891
P-40	Total Gross/Weapon System Cost				- / 33.774	- / 32.273	- / 38.445	- / 39.208	- / 125.055	- / 1,783.276
*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 2020 funding will continue to fund LITENING COFP V4 software upgrade required to utilize ATDL, and associated firmware validation and logistics elements to include training and support equipment. COFP V4 will integrate new data sets to the aircraft mission and weapon systems computers, and will integrate Pod Datalink encryption. FY 2020 will also continue procurement of the ATDL, will provide LITENING forward section upgrade and will fund non-recurring engineering efforts for the LITENING Digital Port Upgrade. FY 2020 funding will also continue incorporation of AV-8B F402-RR-408 engine safety and operational changes; will continue incorporation of OR/RMP systems, electrical and structural changes to include Leading Edge Root Extension (LERX), Seat Caution Light, and Nose Landing Gear Taxi Light Engineering Change Proposals (ECPs) and inventory sustainment and upgrade efforts to offset obsolescence and attrition. FY 2020 funding supports the continuation of upgrading Link 16 Small Tactical Terminals (STTs) to meet crypto modernization standards.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	628.960	12.999	25.956	21.028	0.000	21.028	18.783	20.727	27.214	27.752	77.360	860.779
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	628.960	12.999	25.956	21.028	0.000	21.028	18.783	20.727	27.214	27.752	77.360	860.779
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	628.960	12.999	25.956	21.028	0.000	21.028	18.783	20.727	27.214	27.752	77.360	860.779
(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 system integrates and procures an external targeting pod that includes an infrared and low-light television targeting device capable of detecting, classifying, auto-tracking, and designating air-to-surface targets. The system will support first-pass autonomous delivery of conventional, precision guided and accurate munitions to include Laser Maverick, Guided Bomb Unit (GBU)-12, GBU-16, and Joint Direct Attack Munitions. The system will provide targeting capabilities for the AV-8B Fleet of Night Attack and RADAR aircraft through the end of its service life. The AV-8B Program Office is the single management authority, procuring, integrating, and managing the LITENING Pod program on all United States Marine Corps (USMC) (AV-8B/F/A-18) platforms in order to maintain commonality within USMC Tactical Air (TACAIR) for LITENING capabilities. Under this structure, the G4 LITENING pod is being procured and integrated on the AV-8B and F/A-18 platforms via aircraft-specific Operational Flight Programs (OFPs). The G4 upgrade vastly improves combat capabilities through increased coverage, expanded Improvised Explosive Device detection capability, and expanding range of video downlink to support ground units equipped with Remote Operated Video Enhanced Receiver (ROVER) and Video Scout ground stations. Theater Joint Tactical Air Requests are specifically requesting LITENING Datalink capabilities for Intelligence, Surveillance, and Reconnaissance. The upgrade doubles the Forward Looking Infrared resolution, and adds Laser Target Image Processing (LTIP) for enhanced detection and targeting capability; increasing the survivability and effectiveness of ground forces. Further upgrades to the Pod Common USMC OFP, such as COFP V4 and V5, will be integrated in follow-on AV-8B and F/A-18 platform OFPs. Future upgrades are planned to the LITENING Datalink. The Advanced Tactical Datalink (ATDL), in conjunction with COFP V4, will permit collaborative and networked payloads to communicate with each other and determine appropriate action against multiple targets simultaneously. It will enable usage of multiple data waveforms for information exchange in both air-to-air and air-to-ground environments among an increasing number of contributors, providing the ability to link ground forces into a digital interoperable, robust, and flexible network architecture. The ATDL will serve as a conduit between disparate networks and waveforms and off-board relative and pertinent data to maneuvering forces in real time and will provide wireless networking capability. Support equipment will include portable power units, trouble shooting support equipment and video viewing devices. The associated V4 software upgrade will integrate tracking Algorithm updates providing more reliable tracking of moving targets, improvements to the passive ranging, improvements to Pod focus and mode selection process, and image overlay mode. The G4 to SE Pod Forward Section Upgrade will upgrade LITENING Pod forward sections component with a Forward-Looking Infra-Red (FLIR) improvement that will mitigate emergent threats. The LITENING Digital Port Upgrade and associated V5 software to enable this upgrade will enable the LITENING pod to connect to the aircraft via high speed Ethernet connection, which will enable transmission of high definition LITENING pod video to a tablet display in the cockpit via an aircraft wiring kit. This will enable aircrew to view pod video in high definition in order to better identify threats and positively identify targets.

FY20 continues funding COFP V4 software upgrade, required to utilize ATDL, and associated firmware validation and logistics elements to include training and support equipment. COFP V4 will integrate new data sets to the aircraft mission and weapon systems computers, and will integrate Pod Datalink encryption. FY20 continues the procurement of the ATDL, will continue funding G4 to SE Pod forward section upgrades, will begin non-recurring engineering efforts for the LITENING Digital Port (LDP) Upgrade, and will fund COFP V5 software required for the LDP upgrade.

All LITENING modifications, software/firmware validation, and associated logistics elements support both USMC TACAIR Expeditionary platforms that are currently supporting Overseas Contingency Operations (OCO) combat operations, and all Commandant of the Marine Corps directed pre-deployment training requirements. COFP costs will fluctuate between years due to software/firmware upgrade complexity for specific software upgrades, as well as differences in scope between early contractor efforts for Pod software, and following Organic efforts for aircraft software coding and integration. Conduct mitigations for parts obsolescence in the LITENING pod and associated training and support equipment. Funds will be utilized to manage, process, and incorporate LITENING upgrades and implement changes to sustain

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0514 / AV-8 Series	Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
and improve the digital interoperability systems readiness including safety, mission availability, system employment, and component reliability, maintainability, and obsolescence conditions as these emerging deficiencies arise and require modification. This funding will ensure that software is upgraded and integrated, and logistically supported to ensure the LITENING capabilities are integrated with aircraft OFPs. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The LITENING Targeting Pod is a non-developmental item. FY20 baseline funding continues Common OFP V4 upgrade efforts to include integration into platform OFPs, continue procurement of ATDLs and G4 to SE forward section upgrades, conducts engineering effort associated with LITENING Digital Port Upgrade and begins COFP V5 software effort required for LDP upgrade, performs software/firmware validation and associated logistics elements to include publications, training equipment and support equipment. The LITENING pod will be in service past the out of service date of the AV-8B, as the Expeditionary USMC LITENING pod will remain in service and require ongoing upgrades to support its use on the USMC F/A-18 platform through its service life.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AV-8B Night Attack & Radar/Reman				Modification Type: Upgrade				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit - NonOrganic ⁽¹⁾ Installation 1 of 1	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.539	8 / 0.628	20 / 1.602	18 / 1.470	21 / 1.682	74 / 5.921	
1.2.1) Installation Kits N/R - Organic ^{(*) (2)}	- / -	- / -	- / 3.591	- / 1.241	- / -	- / 1.241	- / 0.701	- / 0.147	- / -	- / -	- / -	- / 5.680	
2.1.1) Pod Upgrade Kits (BLOCK 1 to GEN4) - Organic ^{(*) (3)}	39 / 56.806	3 / 5.483	4 / 7.456	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 69.745	
2.1.2) G4 to SE Pod Forward Section Upgrade - Organic ^{(*) (4)}	- / -	- / -	7 / 1.750	7 / 1.785	- / -	7 / 1.785	7 / 1.821	8 / 2.122	16 / 4.245	16 / 4.330	160 / 26.321	221 / 42.374	
2.1.3) Common OFP V4 - Organic ^{(*) (5)}	- / 4.876	- / 4.906	- / 8.791	- / 8.911	- / -	- / 8.911	- / 1.555	- / -	- / -	- / -	- / -	- / 29.039	
2.1.4) Advanced Tactical Datalink (ATDL) WRA - Organic ^{(*) (6)}	- / -	- / -	5 / 1.470	10 / 2.998	- / -	10 / 2.998	14 / 4.282	25 / 7.799	33 / 10.500	31 / 10.061	2 / 0.636	120 / 37.746	
2.1.5) Common OFP V5 - LDP - Organic ^{(*) (7)}	- / -	- / -	- / -	- / 2.420	- / -	- / 2.420	- / 3.632	- / 3.822	- / -	- / -	- / -	- / 9.874	
2.1.6) LITENING Digital Port Pod Upgrade - Organic ^{(*) (8)}	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.510	8 / 2.926	20 / 7.462	18 / 6.716	67 / 24.997	120 / 44.611	
2.1.7) Archived ECPs - Organic ^(*)	204 / 319.634	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 319.634	
2.1.8) Archived ECP's (OCO) - Organic ^(*)	68 / 97.198	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	68 / 97.198	
2.2.1) Installation Equipment N/R - Organic ^{(*) (9)}	- / 55.284	- / 1.088	- / 1.347	- / 1.116	- / -	- / 1.116	- / 0.924	- / 0.781	- / 0.795	- / 0.801	- / 8.263	- / 70.399	
Subtotal: Procurement	- / 533.798	- / 11.477	- / 24.405	- / 18.471	- / -	- / 18.471	- / 15.964	- / 18.225	- / 24.604	- / 23.378	- / 61.899	- / 732.221	
Support													
3.1) Engineering Change Orders	- / 1.748	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.748	
3.2) Data ⁽¹⁰⁾	- / 1.550	- / 0.051	- / 0.052	- / 0.202	- / -	- / 0.202	- / 0.260	- / 0.054	- / 0.056	- / 0.056	- / 0.309	- / 2.590	
3.3) Training Equipment ⁽¹¹⁾	- / 21.366	- / 0.338	- / 0.342	- / 1.449	- / -	- / 1.449	- / 0.904	- / 0.360	- / 0.351	- / 0.339	- / 2.181	- / 27.630	
3.4) Support Equipment ⁽¹²⁾	111 / 7.771	- / -	- / 0.084	- / 0.085	- / -	- / 0.085	- / 0.702	- / 0.088	- / 0.089	- / 0.091	- / 0.531	111 / 9.441	
3.5) ILS ⁽¹³⁾	- / 4.478	- / 0.026	- / 0.026	- / 0.026	- / -	- / 0.026	- / 0.061	- / 0.027	- / 0.028	- / 0.028	- / 0.101	- / 4.801	
3.6) Other Support	- / 58.249	- / 1.107	- / 1.047	- / 0.795	- / -	- / 0.795	- / 0.892	- / 0.940	- / 0.905	- / 0.907	- / 6.430	- / 71.272	
Subtotal: Support	- / 95.162	- / 1.522	- / 1.551	- / 2.557	- / -	- / 2.557	- / 2.819	- / 1.469	- / 1.429	- / 1.421	- / 9.552	- / 117.482	
Installation													
Installation 1 of 1: ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.033	- / 1.181	- / 2.953	- / 5.909	- / 11.076	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.033	- / 1.181	- / 2.953	- / 5.909	- / 11.076	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series						Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: AV-8B Night Attack & Radar/Reman				Modification Type: Upgrade				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	628.960	12.999	25.956	21.028	0.000	21.028	18.783	20.727	27.214	27.752	77.360	860.779	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0514 / AV-8 Series										Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit																															
Manufacturer Information																															
Manufacturer Name: BOEING														Manufacturer Location: St Louis, MO																	
Administrative Leadtime (in Months): 0														Production Leadtime (in Months): 12																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jul 2021				Jul 2022				Jul 2023				Jul 2024					
Delivery Dates														Jul 2022				Jul 2023				Jul 2024				Jul 2025					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		7 / 1.033		- / -		- / -		0 / 0.000								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		8 / 1.181		- / -		- / -		0 / 0.000								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 2.953		0 / 0.000								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 2.727		18 / 2.727								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 3.182		21 / 3.182								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		7 / 1.033		8 / 1.181		20 / 2.953		39 / 5.909								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	2	2	2	2	5	5	5	5	39	74	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	2	2	2	2	5	5	5	44	74	
Footnotes:																															
(1) ECP-TBD AV-8B LITENING Video to Cockpit Wiring: Schedule slip since PB19 due to requirement to upgrade software associated with the modification and expected NRE and contracting lead time in FY19 and FY20.																															
(2) Installation Kits N/R: Non-recurring engineering to perform complex NRE/verification required to procure and install ECP-TBD AV-8B LITENING Video to Cockpit Wiring A Kit.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0514 / AV-8 Series	Modification Number / Title: 1 / AV-8B LITENING POD (OSIP 023-00)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(3) Pod Upgrade Kits (BLOCK 1 to GEN4): The Block 1 to Gen 4 Pod Upgrade Kit contract per unit price decreases with each unit procured, to include units procured by other services. FY18 and FY19 are standalone small quantity procurements, impacting per unit price. (4) G4 to SE Pod Forward Section Upgrade: Total quantity of 221 LITENING Pods used by AV-8B and F/A-18 platforms will receive upgrade. (5) Common OFP V4: Planned implementation via aircraft platform ECP following completion of Common OFP V3. COFP V4 will incorporate ATDL software. This upgrade will be implemented in aircraft via platform ECPs for AV-8B and F/A-18. Costs fluctuate from year to year due to varying costs of contractor efforts to write Pod software, and following multiple-year Government efforts to write aircraft side software to integrate with contractor Pod software. FY 21 cost decreases as platform OFPs mature and software effort decreases. Quantity is not reflected as each platform will produce software that will be incorporated via ECP at the O-level in all aircraft capable of utilizing the LITENING pod. (6) Advanced Tactical Datalink (ATDL) WRA: Increase in quantity from FY19 through FY23 required to permit collaborative and networked payloads to communicate with each other and determine appropriate action against multiple targets simultaneously. (7) Common OFP V5 - LDP: Funding supports software modification required for LDP upgrade. (8) LITENING Digital Port Pod Upgrade: Increase in kit procurements from FY22 to FY23 as testing is completed and aircraft induction rates ramp up. (9) Installation Equipment N/R: NRE supports integration of COFP V4, as well as NRE for Advanced Tactical Datalink (ATDL). Firmware validations also performed under this line. NRE fluctuates from year to year based on the complexity of the effort undergoing NRE. FY 19 and FY20 NRE is required due to the increased amount of non-recurring engineering required to integrate the ATDL in the Litening Pod as utilized aboard the AV-8B and F/A-18 as well as required to perform necessary validation of LITENING firmware updates with the AV-8B and F/A-18 platforms. (10) Data: FY20 and FY21 increase is due to required publication updates to incorporate the COFP V4 and ATDL hardware into the Fleet LITENING Pods, as well as the incorporation of the LITENING Digital Port upgrade and ECP-TBD LITENING Video to Cockpit Wiring modification into the publications. Amounts fluctuate per fiscal year due to changes in publication efforts planned for each year, and depending on the types of upgrades in work in a given year. Costs change due to number, type, and complexity of hardware/software/firmware updates planned each year. This OSIP is made up of multiple upgrades, and each upgrade is not in the same state each year, nor does each upgrade impact the same number of pages in publications. (11) Training Equipment: Trainer funding is required in FY19-FY21 for COFP V4 and ATDL trainer upgrades. Costs increase in FY20 due to expected contract award to account for ATDL and COFP V4 efforts. Costs fluctuate from year to year due to changing levels of effort required organically and by contracts to support COFP V4 as well as ATDL. As the effort progresses, the funds required fluctuate from year to year. (12) Support Equipment: Increase in FY21 is due to requirement to upgrade support equipment utilized to playback LITENING video. (13) ILS: Increase in FY21 due to ILS required to support ECP-TBD AV-8B LITENING Video to Cockpit Wiring Kit modification.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	64.064	3.603	3.858	3.392	0.000	3.392	3.706	4.461	4.550	4.641	15.634	107.909
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	64.064	3.603	3.858	3.392	0.000	3.392	3.706	4.461	4.550	4.641	15.634	107.909
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	64.064	3.603	3.858	3.392	0.000	3.392	3.706	4.461	4.550	4.641	15.634	107.909
<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 AV-8B is a single engine aircraft with unique capabilities. The Vertical/Short Take-off Landing environment is very unforgiving and allows no tolerance for engine problems. The Engine Life Management Program (ELMP) is a comprehensive program to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. Funding provided is to incorporate Engineering Change Proposals (ECP) to increase safety of flight and operational readiness of the F-402-RR-408 Engine and accessories. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Operational, Safety and Improvement Program 02-04 supports the Harrier AV-8B ELMP through Aircraft Procurement, Navy funding. Power Plant changes are required throughout the aircraft service life as the aircraft ages and operationally revealed deficiencies are discovered, researched, and solutions engineered. The power plant program procures the necessary kits, installation, non-recurring engineering, peculiar support equipment, and technical data. The kits provided are for engine, propulsion accessories and related hardware to support the AV-8B F402-RR-408 engine. The purpose of the program is to increase safety of flight and operational readiness of the AV-8B F402-RR-408 Engine. This OSIP also provides funding for the Integrated Logistics Support program whose primary objective is to achieve an effective, affordable and supportable program for the engine that fulfills its readiness and fleet operational requirements at the lowest Life Cycle Cost.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AV-8B Night Attack & Radar/Reman				Modification Type: Upgrade					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)													
A Kits													
Recurring													
1.1.1) ECP-1095 GTS Brake Seal - Organic	41 / 0.600	- / -	43 / 0.630	43 / 0.642	- / -	43 / 0.642	8 / 0.120	8 / 0.122	8 / 0.124	8 / 0.126	55 / 0.994	214 / 3.358	
1.1.2) ECP TBD EVICS Interrogator / Obsolescence - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	194 / 6.000	194 / 6.000	
1.1.3) ECP-3939 ECS Filtration Pipe - Organic	1 / 0.534	1 / 0.536	4 / 0.538	1 / 0.540	- / -	1 / 0.540	1 / 0.550	1 / 0.561	1 / 0.572	1 / 0.581	- / -	11 / 4.412	
1.1.4) ECP TBD LPC1 Redesign - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.5) ECP TBD #2 Bearing Redesign - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.6) ECP TBD CCOC Thermocouples - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300	
1.1.7) ECP TBD FMU Obsolescence - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	192 / 3.000	192 / 3.000	
1.1.8) ECP TBD MK107 Conversion to 408B - Organic	1 / 0.534	1 / 0.536	1 / 0.538	1 / 0.538	- / -	1 / 0.538	1 / 0.550	1 / 0.561	1 / 0.572	1 / 0.581	- / -	8 / 4.410	
1.1.9) Archived ECPs - Organic	449 / 11.509	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	449 / 11.509	
Subtotal: Recurring	- / 13.177	- / 1.072	- / 1.706	- / 1.720	- / -	- / 1.720	- / 1.220	- / 1.244	- / 1.268	- / 1.288	- / 10.894	- / 33.589	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 0.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.104	
Subtotal: Non-Recurring	- / 0.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.104	
B Kits													
Non-Recurring													
2.1.1) Installation Equipment N/R - Organic	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400	
Subtotal: Non-Recurring	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.400	
Subtotal: ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)	492 / 13.681	2 / 1.072	48 / 1.706	45 / 1.720	- / -	45 / 1.720	10 / 1.220	10 / 1.244	10 / 1.268	10 / 1.288	450 / 10.894	1,077 / 34.093	
Subtotal: Procurement, All Modification Items	- / 13.681	- / 1.072	- / 1.706	- / 1.720	- / -	- / 1.720	- / 1.220	- / 1.244	- / 1.268	- / 1.288	- / 10.894	- / 34.093	
Support (All Modification Items)													
3.3) Data	- / 5.039	- / 0.085	- / 0.197	- / 0.162	- / -	- / 0.162	- / 0.165	- / 0.168	- / 0.130	- / 0.130	- / 1.417	- / 7.493	
3.4) Support Equipment	- / 17.906	- / 1.174	- / 0.671	- / 0.161	- / -	- / 0.161	- / 0.695	- / 0.709	- / 0.720	- / 0.732	- / 0.463	- / 23.231	
3.5) ILS	- / 21.583	- / 1.089	- / 1.219	- / 1.283	- / -	- / 1.283	- / 1.560	- / 2.274	- / 2.366	- / 2.425	- / 2.053	- / 35.852	
3.6) Other Support	- / 5.155	- / 0.183	- / 0.065	- / 0.066	- / -	- / 0.066	- / 0.066	- / 0.066	- / 0.066	- / 0.066	- / 0.807	- / 6.540	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AV-8B Night Attack & Radar/Reman					Modification Type: Upgrade					Related RDT&E PEs:			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
3.8) Archived Support Costs	- / 0.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.700	
<i>Subtotal: Support</i>	<i>- / 50.383</i>	<i>- / 2.531</i>	<i>- / 2.152</i>	<i>- / 1.672</i>	<i>- / -</i>	<i>- / 1.672</i>	<i>- / 2.486</i>	<i>- / 3.217</i>	<i>- / 3.282</i>	<i>- / 3.353</i>	<i>- / 4.740</i>	<i>- / 73.816</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	64.064	3.603	3.858	3.392	0.000	3.392	3.706	4.461	4.550	4.641	15.634	107.909	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0514 / AV-8 Series	Modification Number / Title: 2 / ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: ENGINE LIFE MANAGEMENT PROGRAM (OSIP 002-04)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	178.243	19.307	25.095	12.698	0.000	12.698	7.473	4.155	6.681	6.815	32.061	292.528
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	178.243	19.307	25.095	12.698	0.000	12.698	7.473	4.155	6.681	6.815	32.061	292.528
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	178.243	19.307	25.095	12.698	0.000	12.698	7.473	4.155	6.681	6.815	32.061	292.528
<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: Obsolescence Replacement provides for maintaining the readiness of the AV-8B weapons system until its projected end of service, which is now 2028 or until replaced by short take-off and vertical landing (STOVL) operations F-35B. This requires the airframe and integrated systems to exceed planned service life and requires both systems modifications and obsolescence solutions. Funds will be utilized to procure kits and kit components, incorporate Engineering Change Proposals (ECPs) and implement changes to sustain and improve AV-8B weapons system readiness including safety, mission availability, structural integrity, air-to-ground and air-to-air weapon system employment, stores expansion, and component (avionics/systems) reliability, maintainability, and obsolescence conditions, including peculiar support equipment. This program may be required to provide emergent, timely remedial action for any aircraft system, component or structure. All depot level modification installations will be planned and programmed concurrent with Integrated Maintenance Plan (IMP)/Planned Maintenance Interval (PMI) scheduled depot overhaul events to minimize aircraft out-of-service periods, unless safety or aircraft availability require stand-alone installations, or depot lack of capacity requires contracted modification installations. With the end of service life currently being 2028, OSIP 06-06 Obsolescence Replacement continues to focus on those ECPs that maintain the readiness of the AV-8B weapons system with consideration for cost and schedule. Procurement kit quantities have been accelerated for several ECPs in order to capitalize on and piggyback off of the compressed Link 16 installation schedule; this allows aircraft to receive multiple ECPs in conjunction with the Link 16 install which is not only a cost savings but also allows for aircraft to be returned to Ready Basic Aircraft (RBA) status in a significantly more timely manner. Determination of ECP kit quantities is based off of fleet requirements as outlined in the A-11 as well as information from the TYCOM which reflects the squadron transition plan for the AV-8B fleet. FY20 Installation funding supports installs of the following modifications: Leading Edge Root Extension (LERX), Seat Caution Light and Nose Landing Gear Taxi Light. FY18 - FY24 Qty profile updated based on Depot's current schedule for modification installation. Support costs required for Obsolescence ECPs do not correlate significantly with the quantity or unit cost of kits procured. In FY 2020 non-recurring engineering and integrated logistic support (ILS) work continues for ECPs, procurements and installations for new and ongoing obsolescence and readiness requirements. Key efforts include Leading Edge Root Extension (LERX) and Seat Caution Light Incorporation that address safety, integrity and obsolescence issues. Additional safety and reliability modifications include RADAR Utility Test Panel, RADAR ECS Filtration incorporation, Oil Caution Light Relocation, Nose Landing Gear Taxi Light, Landing, Approach and Hover Light Improvements, and OSP3R processor card obsolescence replacement. Other efforts include weapons capability ECPs and obsolescence mitigation ECPs, the integration and logistics elements required for use of Common Avionics Procured KY-58 obsolescence replacement, data/ILS updates for ECPs and support equipment procurements unique to the use of the BRU-70, JSOW and Display Computer. Various kit procurements and installations will continue throughout the Future Years Defense Plan. NRE will fluctuate due to mix and complexity of Readiness Management Plan ECPs being written and verified in each year. All ECPs do not require the same level of NRE.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series				Modification Number / Title: 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: OBSOLESCENCE REPLACEMENT (OSIP 006-06)													
A Kits													
Recurring													
1.1.1) ECP-PMA-257-2011-0001 Center Tank Structural Modification - NonOrganic	73 / 2.772	9 / 0.183	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	82 / 2.955	
1.1.2) ECP PMA-257-2008-0004 Frame 43 Bushings - NonOrganic	104 / 0.788	6 / 0.016	14 / 0.037	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	124 / 0.841	
1.1.3) ECP-MDC-AV-8B-00332 Canopy Latch - NonOrganic	90 / 2.367	24 / 0.081	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	114 / 2.448	
1.1.4) ECP-PMA-257-2010-0002 Frame 29 Structure Modification - NonOrganic	40 / 2.416	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 2.416	
1.1.5) ECP-CP-049 Leading Edge Root Extension (LERX) - Organic ⁽¹⁴⁾	- / -	64 / 1.149	48 / 0.873	72 / 1.334	- / -	72 / 1.334	72 / 1.360	- / -	- / -	- / -	- / -	256 / 4.716	
1.1.6) ECP-TBD Seat Caution Light Incorporation - NonOrganic	4 / 0.630	- / -	72 / 1.548	20 / 0.438	- / -	20 / 0.438	- / -	- / -	- / -	- / -	- / -	96 / 2.616	
1.1.7) ECP-257-2017-0007 Utility Test Panel Upgrade - NonOrganic	40 / 1.861	35 / 1.462	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 3.323	
1.1.8) ECP-TBD Radar Environmental Control System (ECS) Filter Incorporation - Organic	- / -	- / -	74 / 2.220	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	74 / 2.220	
1.1.10) ECP-TBD Universal Wing - Organic	- / -	- / -	2 / 0.352	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.352	
1.1.11) ECP-TBD AIM-9X Wiring Kit - Organic	- / -	110 / 1.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 1.650	
1.1.12) ECP-TBD Oil Caution Light - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.960	- / 1.000	- / -	- / 1.960	
1.1.13) ECP-TBD Nose Landing Gear Taxi Light - NonOrganic ⁽¹⁵⁾	- / -	- / -	- / 0.740	74 / 3.059	- / -	74 / 3.059	- / 0.156	- / -	- / -	- / -	- / -	74 / 3.955	
1.1.14) ECP-TBD-Radome Replacement - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.961	10 / 0.971	90 / 22.950	109 / 24.882	
1.1.15) A Kits/Recurring - ARCHIVED ECPs - NonOrganic	2,658 / 14.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,658 / 14.143	
Subtotal: Recurring	- / 24.977	- / 4.541	- / 5.770	- / 4.831	- / -	- / 4.831	- / 1.516	- / -	- / 1.921	- / 1.971	- / 22.950	- / 68.477	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic ⁽¹⁶⁾	- / 23.607	- / 0.250	- / -	- / 0.024	- / -	- / 0.024	- / 1.080	- / 0.040	- / 0.005	- / -	- / -	- / 25.006	
Subtotal: Non-Recurring	- / 23.607	- / 0.250	- / -	- / 0.024	- / -	- / 0.024	- / 1.080	- / 0.040	- / 0.005	- / -	- / 0.000	- / 25.006	
B Kits													
Recurring													

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.1) ECP-TBD Open System Processor Version 3r (OSP3R) - Organic	- / -	- / -	145 / 4.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	145 / 4.480	
2.1.2) T-HUD Camera - Organic	- / -	32 / 1.952	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 1.952	
2.1.3) ECP-TBD Precision Landing System - Organic	- / -	- / -	124 / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	124 / 0.050	
2.1.4) B Kits Recurring - ARCHIVED ECPs - Organic	128 / 30.236	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	128 / 30.236	
Subtotal: Recurring	- / 30.236	- / 1.952	- / 4.530	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 36.718	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic ⁽¹⁷⁾	- / 25.887	- / 1.997	- / 2.320	- / 0.331	- / -	- / 0.331	- / -	- / -	- / -	- / -	- / -	- / 30.535	
Subtotal: Non-Recurring	- / 25.887	- / 1.997	- / 2.320	- / 0.331	- / -	- / 0.331	- / -	- / -	- / -	- / -	- / 0.000	- / 30.535	
Subtotal: OBSOLESCENCE REPLACEMENT (OSIP 006-06)	3,137 / 104.707	280 / 8.740	479 / 12.620	166 / 5.186	- / -	166 / 5.186	72 / 2.596	- / 0.040	9 / 1.926	10 / 1.971	90 / 22.950	4,243 / 160.736	
Subtotal: Procurement, All Modification Items	- / 104.707	- / 8.740	- / 12.620	- / 5.186	- / -	- / 5.186	- / 2.596	- / 0.040	- / 1.926	- / 1.971	- / 22.950	- / 160.736	
Support (All Modification Items)													
3.2) Data	- / 1.123	- / 0.259	- / 0.268	- / 0.060	- / -	- / 0.060	- / -	- / -	- / -	- / -	- / -	- / 1.710	
3.3) Training Equipment	- / 0.995	- / 0.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.054	
3.4) Support Equipment	- / 5.321	- / 0.245	- / 2.904	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.470	
3.5) ILS ⁽¹⁸⁾	- / 4.349	- / 0.488	- / 0.548	- / 0.517	- / -	- / 0.517	- / 0.517	- / 0.526	- / 0.536	- / 0.546	- / 1.832	- / 9.859	
3.6) Other Support ⁽¹⁹⁾	- / 35.312	- / 4.205	- / 3.524	- / 3.716	- / -	- / 3.716	- / 3.908	- / 3.589	- / 4.219	- / 4.298	- / 7.279	- / 70.050	
Subtotal: Support	- / 47.100	- / 5.256	- / 7.244	- / 4.293	- / -	- / 4.293	- / 4.425	- / 4.115	- / 4.755	- / 4.844	- / 9.111	- / 91.143	
Installation													
Modification Item 1 of 1: OBSOLESCENCE REPLACEMENT (OSIP 006-06)	- / 26.436	- / 5.311	- / 5.231	- / 3.219	- / 0.000	- / 3.219	- / 0.452	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 40.649	
Subtotal: Installation	- / 26.436	- / 5.311	- / 5.231	- / 3.219	- / -	- / 3.219	- / 0.452	- / -	- / -	- / -	- / 0.000	- / 40.649	
Total													
Total Cost (Procurement + Support + Installation)	178.243	19.307	25.095	12.698	0.000	12.698	7.473	4.155	6.681	6.815	32.061	292.528	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0514 / AV-8 Series										Modification Number / Title: 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: OBSOLESCENCE REPLACEMENT (OSIP 006-06)																																							
Manufacturer Information																																							
Manufacturer Name: Various															Manufacturer Location: Various																								
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																								
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024													
Contract Dates																																							
Delivery Dates																																							
Installation Information																																							
Method of Implementation: Safety:: Installation Name: OBSOLESCENCE REPLACEMENT (OSIP 006-06)																																							
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		2,572 / 26.436		161 / 5.264		33 / 3.547		1 / 0.169		0 / 0.000		1 / 0.169		- / -		- / -		- / -		- / -		0 / 0.000		2,767 / 35.416															
FY 2018		- / -		2 / 0.047		60 / 1.684		12 / 1.967		0 / 0.000		12 / 1.967		- / -		- / -		- / -		- / -		0 / 0.000		74 / 3.698															
FY 2019		- / -		- / -		- / -		86 / 1.083		0 / 0.000		86 / 1.083		- / -		- / -		- / -		- / -		0 / 0.000		86 / 1.083															
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		94 / 0.452		- / -		- / -		- / -		0 / 0.000		94 / 0.452															
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
Total		2,572 / 26.436		163 / 5.311		93 / 5.231		99 / 3.219		0 / 0.000		99 / 3.219		94 / 0.452		- / -		- / -		- / -		0 / 0.000		3,021 / 40.649															
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2,572	38	39	42	44	25	26	22	20	29	25	24	21	23	23	24	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Out	2,572	38	39	42	44	25	26	22	20	29	25	24	21	23	23	24	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Method of Implementation (Organic): ECP-CP-049 Leading Edge Root Extension (LERX)																														Installation Quantity: 256									
Method of Implementation (Organic): ECP-TBD Radar Environmental Control System (ECS) Filter Incorporation																														Installation Quantity: 74									

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0514 / AV-8 Series	Modification Number / Title: 3 / OBSOLESCENCE REPLACEMENT (OSIP 006-06)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: OBSOLESCENCE REPLACEMENT (OSIP 006-06)		
Installation Information		
Method of Implementation (Organic): ECP-TBD Universal Wing - Not Installed		Installation Quantity: 2
Method of Implementation (Organic): ECP-TBD AIM-9X Wiring Kit		Installation Quantity: 110
Method of Implementation (Organic): ECP-TBD-Radome Replacement		Installation Quantity: 109
Method of Implementation (Organic): ECP-TBD Open System Processor Version 3r (OSP3R)		Installation Quantity: 145
Method of Implementation (Organic): T-HUD Camera		Installation Quantity: 32
Method of Implementation (Organic): ECP-TBD Precision Landing System		Installation Quantity: 124
Method of Implementation (Organic): B Kits Recurring - ARCHIVED ECPs - Not Installed		Installation Quantity: 128
Footnotes: ⁽¹⁴⁾ Increase in LERX from 48 in FY 2019 to 72 in FY 2020 ⁽¹⁵⁾ ECP-TBD Nose Landing Gear Taxi Light: NRE complete in FY 19; Increase in FY20 due to 74 kit procurements. ⁽¹⁶⁾ Installation Kits N/R: Year-to-year fluctuations due to the mix and complexity of Readiness Management Plan ECPs being written and verified in each year. All ECPs do not require the same level of NRE. ⁽¹⁷⁾ Installation Equipment N/R: FY20 decrease due to progression of OSP3r Mission Systems Computer Processor Card into procurement. Equipment NRE will fluctuate overall due to mix and complexity of RMP ECPs being written and verified in each year. ⁽¹⁸⁾ ILS: ILS Support costs required for Obsolescence ECPs do not significantly fluctuate based on the quantity or unit cost of kits procured. ⁽¹⁹⁾ Other Support: Increase in FY 19 from PB19 due to additional labor at FST Cherry Point to support ECP installs. Increase from FY 22 to FY 23 due to required obsolescence mitigation and ECP forecasting to support the extended end of service date.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	17.552	5.853	3.668	2.354	0.000	2.354	3.812	2.930	0.000	0.000	0.000	36.169
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	17.552	5.853	3.668	2.354	0.000	2.354	3.812	2.930	0.000	0.000	0.000	36.169
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	17.552	5.853	3.668	2.354	0.000	2.354	3.812	2.930	0.000	0.000	0.000	36.169
<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 AV-8B is required to be digitally interoperable with other U.S. and Allied platforms via MIL-STD-6016 (Link 16) waveform. Airborne tactical Datalink messaging will be enabled via Link 16 waveform, providing the ability for the AV-8B to provide Precise Participant Location and Identification (PPLI), send and receive targeting information, view the common air/surface picture, and view Link surveillance tracks. This tactical data communication between the AV-8B, ground units, and joint assets will provide increased interoperability; improved safety/situational awareness/de-confliction, reduced kill timelines, and digital interoperability. Link 16 A and B kits were incorporated into the aircraft via ECP. ECPs to include the Auxiliary Communications Navigation Identification Panel (ACNIP), Interference Blanker Unit (IBU) and the Mission Systems Computer (MSC) were required to be installed prior to or with Link 16 in order to utilize the capability, as will the APX-123 ECP, to be procured by PMA213. All ECPs will require NRE and logistics support elements to include tech data/pubs, ILS, training equipment/upgrade, support equipment procurement/modification and other support. This OSIP will also be used to perform efforts to address certifications and spectrum assignments of these systems, as well as parts obsolescence. This OSIP will fund ECPs to the STT (Link 16 B-kit) required meet crypto-modernization mandate and to provide a MIDS-Modernization-like upgrade to the STT. FY20 will continue Link 16 upgrades to meet crypto modernization standards, will perform NRE required to procure MIDS-Modernization-like upgrades in FY 2021-2022, and will address logistics elements, to include trainer upgrades associated with the H7.0 software ECPs that will incorporate the Link 16 capability upgrade. As the Link 16 functionality is enabled by H6.2 software, and Link 16 capability is upgraded by the H7.0 software, this OSIP supports the validation and configuration management of the Link 16 and aircraft OFP software as impacted by Link 16. Technology upgrades at COTS vendor drives software changes to Link 16, which will be integrated via H7.0. Funds will be utilized to manage, process, and incorporate digital interoperability ECPs and implement changes to sustain and improve the digital interoperability systems readiness including safety, mission availability, system employment, and component reliability, maintainability, and obsolescence conditions as these emerging deficiencies arise and require modification. This funding will ensure that software is upgraded and integrated to ensure the LINK 16 capabilities are integrated with aircraft OFPs. Support costs required for Link 16 Crypto Modernization and STT upgrades do not correlate significantly with the quantity or unit cost of kits procured. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Support equipment procurement/upgrades/support and trainer upgrades began in FY16 and FY17 for Link 16 and OFP ECPs, carrying through FY18 and Link 16 fielding. Installation of kits followed in FY18, followed by ECP and logistics element updates through the FYDP associated to the H7.0 ECP, which is required to integrate full Link 16 functionality. Crypto Modernization upgrade NRE began in FY18, and upgrades will occur in FY19 and FY20 to meet crypto modernization standards, as well as H7.0 trainer upgrades to incorporate upgraded Link 16 capability. NRE for STT upgrade to incorporate MIDS-Modernization-like functionality in the STT will begin in FY20, leading to related procurement and ECP logistics support element updates in FY21 and FY22.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AV-8B Night Attack, Day Attack Upgrade, Radar/Reman & TAV-8B				Modification Type: Upgrade					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: DIGITAL INTEROPERABILITY (OSIP 014-16)													
A Kits													
Recurring													
1.1.1) ECP-MDC-AV8B-00336 Link 16 - NonOrganic		73 / 3.941	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 3.941	
1.1.2) ECP-MDC-AV8B-00336 Link 16 ACNIP Light Plate Mod (Non-Organic) - NonOrganic ⁽²⁰⁾		128 / 0.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	128 / 0.178	
1.1.3) ECP-PMA257-2015-0001 IBU - Organic		100 / 1.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 1.312	
Subtotal: Recurring		- / 5.431	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.431	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic		- / 4.011	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.011	
Subtotal: Non-Recurring		- / 4.011	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.011	
B Kits													
Recurring													
2.1.1) ECP-TBD Link 16 Crypto Modern Upgrade - Organic		- / -	- / -	45 / 0.675	30 / 0.459	- / -	30 / 0.459	- / -	- / -	- / -	- / -	75 / 1.134	
2.1.2) ECP-TBD STT Upgrades - Organic		- / -	- / -	- / -	- / -	- / -	- / -	40 / 2.080	35 / 1.856	- / -	- / -	75 / 3.936	
Subtotal: Recurring		- / 0.000	- / -	- / 0.675	- / 0.459	- / -	- / 0.459	- / 2.080	- / 1.856	- / -	- / -	- / 5.070	
Non-Recurring													
2.2.1) ECP-TBD Link 16 Crypto Modern Upgrade - Organic		- / -	- / -	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	
2.2.2) ECP-TBD STT Upgrades - Organic		- / -	- / -	- / -	- / 0.352	- / -	- / 0.352	- / 0.250	- / 0.100	- / -	- / -	- / 0.702	
Subtotal: Non-Recurring		- / 0.000	- / -	- / 0.200	- / 0.352	- / -	- / 0.352	- / 0.250	- / 0.100	- / -	- / -	- / 0.902	
Subtotal: DIGITAL INTEROPERABILITY (OSIP 014-16)		301 / 9.442	- / -	45 / 0.875	30 / 0.811	- / -	30 / 0.811	40 / 2.330	35 / 1.956	- / -	- / -	451 / 15.414	
Subtotal: Procurement, All Modification Items		- / 9.442	- / -	- / 0.875	- / 0.811	- / -	- / 0.811	- / 2.330	- / 1.956	- / -	- / -	- / 15.414	
Support (All Modification Items)													
3.1) Data		- / 0.190	- / 0.046	- / 0.179	- / 0.060	- / -	- / 0.060	- / 0.100	- / -	- / -	- / -	- / 0.575	
3.2) Training Equipment		- / 3.656	- / 1.956	- / 1.233	- / 0.128	- / -	- / 0.128	- / -	- / -	- / -	- / -	- / 6.973	
3.3) Support Equipment		- / 0.583	- / -	- / 0.190	- / 0.194	- / -	- / 0.194	- / 0.198	- / 0.060	- / -	- / -	- / 1.225	
3.4) ILS ⁽²¹⁾		- / 1.602	- / 0.600	- / 0.482	- / 0.492	- / -	- / 0.492	- / 0.501	- / 0.217	- / -	- / -	- / 3.894	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AV-8B Night Attack, Day Attack Upgrade, Radar/Reman & TAV-8B				Modification Type: Upgrade				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
3.5) Other Support	- / 2.079	- / 1.240	- / 0.709	- / 0.669	- / -	- / 0.669	- / 0.683	- / 0.697	- / -	- / -	- / -	- / 6.077	
<i>Subtotal: Support</i>	<i>- / 8.110</i>	<i>- / 3.842</i>	<i>- / 2.793</i>	<i>- / 1.543</i>	<i>- / -</i>	<i>- / 1.543</i>	<i>- / 1.482</i>	<i>- / 0.974</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 18.744</i>	
Installation													
Modification Item 1 of 1: DIGITAL INTEROPERABILITY (OSIP 014-16)	- / 0.000	- / 2.011	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.011	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / 2.011</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 2.011</i>	
Total													
Total Cost (Procurement + Support + Installation)	17.552	5.853	3.668	2.354	0.000	2.354	3.812	2.930	0.000	0.000	0.000	36.169	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0514 / AV-8 Series										Modification Number / Title: 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: DIGITAL INTEROPERABILITY (OSIP 014-16)																															
Manufacturer Information																															
Manufacturer Name: Boeing - Link 16															Manufacturer Location: Various																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 10																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Link 16 & Link 16 ACNIP Light Plate																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		146 / 2.011		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		146 / 2.011					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		146 / 2.011		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		146 / 2.011					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	37	36	36	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Out	-	37	36	36	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Method of Implementation (Organic): ECP-PMA257-2015-0001 IBU																														Installation Quantity: 100	
Method of Implementation (Organic): ECP-TBD Link 16 Crypto Modern Upgrade - Not Installed																														Installation Quantity: 75	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0514 / AV-8 Series	Modification Number / Title: 4 / DIGITAL INTEROPERABILITY (OSIP 014-16)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: DIGITAL INTEROPERABILITY (OSIP 014-16)		
Installation Information		
Method of Implementation (Organic): ECP-TBD STT Upgrades - Not Installed		Installation Quantity: 75
Footnotes: ⁽²⁰⁾ ECP-TBD Link 16 ACNIP Light Plate Mod (Non-Organic): 73 ACNIP Light Plate Kits will be installed at the D-Level and 55 ACNIP Light Plate Kits will be installed at the I-Level. ⁽²¹⁾ ILS: Increase in FY 20 from PB 19 due to increased ILS requirement to support Link 16 Crypto Modernization.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series						Modification Number / Title: 5 / INACTIVE OSIPS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	485.891	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	485.891
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	485.891	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	485.891
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	485.891	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	485.891
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0514 / AV-8 Series					Modification Number / Title: 5 / INACTIVE OSIPS				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1) Inactive Osips - Organic(*)	- / 485.891	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 485.891	
Subtotal: Procurement	- / 485.891	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 485.891	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	485.891	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	485.891	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0522 / Adversary					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	67.969	2.565	14.606	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	273.635
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	67.969	2.565	14.606	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	273.635
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	67.969	2.565	14.606	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	273.635
<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: This line item funds the modifications to the Adversary aircraft. The Adversary aircraft are a combination of 43 F-5 Tiger IIs (40 F-5Ns and 3 F-5Fs), and Block 15 F-16 Fighting Falcon (10 F-16As and 4 F-16Bs), and the J85 Engine supporting the F-5F/N. The Adversary aircraft provide essential sorties in support of TOPGUN, Fleet Replacement Squadron, Carrier Strike Group, Carrier Air Wing and Unit Deployment Plan training. Both the F-5s and the F-16s are planned to be used as primary Adversary mission through 2025.												
Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024		
NR	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	2.565	14.606	3.415	-	3.415	40.732	51.306	33.534	26.121		
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	2.565	14.606	3.415	-	3.415	40.732	51.306	33.534	26.121		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0522 / Adversary				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Structural Enhancement Program - Reserve Forces (OSIP 009-13) (Safety/Reliability)				- / 15.741	- / 1.855	- / 3.416	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / F-5 System Safety and Sustainability OSIP 017-17 (Safety/Reliability)				- / 0.352	- / 0.710	- / 11.190	- / 3.415	- / 0.000	- / 3.415
P-3a	3 / Inactive OSIPs (TBD)				- / 51.876	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 67.969	- / 2.565	- / 14.606	- / 3.415	- / 0.000	- / 3.415
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Structural Enhancement Program - Reserve Forces (OSIP 009-13) (Safety/Reliability)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 21.012
P-3a	2 / F-5 System Safety and Sustainability OSIP 017-17 (Safety/Reliability)				- / 40.732	- / 51.306	- / 33.534	- / 26.121	- / 33.387	- / 200.747
P-3a	3 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 51.876
P-40	Total Gross/Weapon System Cost				- / 40.732	- / 51.306	- / 33.534	- / 26.121	- / 33.387	- / 273.635
*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 2020 funding request reflects ARC-210 program acceleration under OSIP 017-17 as a result of FY 2019 funding increase										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0522 / Adversary					Modification Number / Title: 1 / Structural Enhancement Program - Reserve Forces (OSIP 009-13)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	15.741	1.855	3.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.012
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	15.741	1.855	3.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.012
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	15.741	1.855	3.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.012
<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: This OSIP incorporates the Falcon Up structural enhancement modification in 10 Navy F-16A Adversary aircraft. The Falcon Up modification is a safety modification that replaces known airframe fatigue sensitive structure. Incorporation of the Falcon Up kit extends the airframe service life from 3,665 flight hours to 4,250 flight hours and will extend the service life until approximately 2025. Development Status/major milestones: The structural components on the Falcon Up kit have been qualified by the Air Force and approved for Navy use. No operational testing is required. A first article test, consisting of nondestructive critical measurements is complete. A firm fixed price contract for kits have been awarded. The kits are in production and delivering on time. The aircraft modification is done as a heel to toe drive in mod at Hill Air Force Depot.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0522 / Adversary					Modification Number / Title: 1 / Structural Enhancement Program - Reserve Forces (OSIP 009-13)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-16 ADVERSARY SERIES				Modification Type: Safety/Reliability				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: Structural Enhancement Program - Reserve Forces (OSIP 009-13)</i>													
A Kits													
Recurring													
1.1.1) Falcon UP Kits - NonOrganic	7 / 3.203	2 / 0.080	1 / 0.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.323	
<i>Subtotal: Recurring</i>	<i>- / 3.203</i>	<i>- / 0.080</i>	<i>- / 0.040</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 3.323</i>	
Non-Recurring													
1.2.2) Non Recurring Engineering - Organic	- / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.200	
<i>Subtotal: Non-Recurring</i>	<i>- / 1.200</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 1.200</i>	
<i>Subtotal: Structural Enhancement Program - Reserve Forces (OSIP 009-13)</i>	<i>7 / 4.403</i>	<i>2 / 0.080</i>	<i>1 / 0.040</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>10 / 4.523</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 4.403</i>	<i>- / 0.080</i>	<i>- / 0.040</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 4.523</i>	
Support (All Modification Items)													
3.1) Other Support	- / 0.838	- / 0.225	- / 0.192	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.255	
<i>Subtotal: Support</i>	<i>- / 0.838</i>	<i>- / 0.225</i>	<i>- / 0.192</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 1.255</i>	
Installation													
<i>Modification Item 1 of 1: Structural Enhancement Program - Reserve Forces (OSIP 009-13)</i>	<i>- / 10.500</i>	<i>- / 1.550</i>	<i>- / 3.184</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>- / 15.234</i>	
<i>Subtotal: Installation</i>	<i>- / 10.500</i>	<i>- / 1.550</i>	<i>- / 3.184</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 15.234</i>	
Total													
Total Cost (Procurement + Support + Installation)	15.741	1.855	3.416	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.012	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0522 / Adversary										Modification Number / Title: 1 / Structural Enhancement Program - Reserve Forces (OSIP 009-13)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Structural Enhancement Program - Reserve Forces (OSIP 009-13)																															
Manufacturer Information																															
Manufacturer Name: ES3															Manufacturer Location: Ogden Utah																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018																									
Delivery Dates		Feb 2018				Feb 2019																									
Installation Information																															
Method of Implementation: Organic Maintenance Facility Hill Air Force Depot:: Installation Name: Falcon UP Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		7 / 10.500		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 10.500					
FY 2018		- / -		1 / 1.550		1 / 1.592		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 3.142					
FY 2019		- / -		- / -		1 / 1.592		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 1.592					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		7 / 10.500		1 / 1.550		2 / 3.184		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 15.234					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	1	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	5	1	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0522 / Adversary					Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.352	0.710	11.190	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	200.747
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.352	0.710	11.190	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	200.747
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.352	0.710	11.190	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	200.747
<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: This Operational Safety Improvement Program (OSIP) funds modifications to F-5 aircraft to implement safety updates as well as required upgrades to avionics systems for Federal Aviation Administration (FAA) compliance. This OSIP includes efforts that address modifications to address safety, reliability, structural integrity, mission availability, maintainability, weapon system employment, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications include Airframe, sub-systems, weapon system, and avionics systems. Modifications, particularly to avionics systems, may also be driven by new cyber security requirements. Initiatives include, but are not limited to: Stability Augmentation Control Assembly (SACA) Obsolescence ECPs, LN-260 Display Upgrades, Integrated ARC 210 Radios, Swiss Aircraft Reconfiguration to USN standard. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: SACA and LN260 display on schedule to complete in FY 2019. ARC-210 NRE begins in FY 2019 with procurement of Kits scheduled to begin in FY 2020 and installations starting in FY 2021. Swiss Reconfiguration NRE and kit procurement scheduled to begin in FY 2021 with installations starting in FY 2022.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0522 / Adversary					Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F-5 Adversary Series			Modification Type: Safety/Reliability					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: F-5 System Safety and Sustainability OSIP 017-17													
A Kits													
Recurring													
1.1.1) A Kits ARC-210 Radio - Organic ⁽¹⁾		- / -	- / -	- / -	8 / 0.160	- / -	8 / 0.160	12 / 0.248	12 / 0.255	11 / 0.240	- / -	- / -	43 / 0.903
1.1.2) A Kits Swiss Reconfiguration - NonOrganic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 13.338	7 / 15.890	3 / 6.900	3 / 7.050	3 / 7.200	22 / 50.378
Subtotal: Recurring		- / 0.000	- / -	- / -	- / 0.160	- / -	- / 0.160	- / 13.586	- / 16.145	- / 7.140	- / 7.050	- / 7.200	- / 51.281
B Kits													
Recurring													
2.1.1) B Kits ARC-210 - NonOrganic		- / -	- / -	- / -	8 / 1.120	- / -	8 / 1.120	12 / 1.731	12 / 1.783	11 / 1.683	- / -	- / -	43 / 6.317
2.1.2) LN 260 Display - Organic ⁽²⁾		- / -	- / -	46 / 3.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 3.500
2.1.3) SACA - Organic ⁽³⁾		- / -	- / -	43 / 2.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 2.990
2.1.4) B Kits Swiss Reconfiguration - Organic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 13.350	7 / 15.904	3 / 6.870	3 / 7.056	3 / 7.140	22 / 50.320
Subtotal: Recurring		- / 0.000	- / -	- / 6.490	- / 1.120	- / -	- / 1.120	- / 15.081	- / 17.687	- / 8.553	- / 7.056	- / 7.140	- / 63.127
Non-Recurring													
2.2.1) Obsolesence - SACA - Organic		- / 0.352	- / 0.710	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.062
2.2.2) LN 260 Display Replacement - NonOrganic ⁽⁴⁾		- / -	- / -	- / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.750
2.2.3) ARC 210 Radio - Organic		- / -	- / -	- / 2.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.550
2.2.4) Structural Enhancement ECP - Organic ⁽⁵⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.039	- / 5.287	- / 7.326
2.2.5) Swiss Reconfiguration - Organic ⁽⁶⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / 6.300	- / -	- / -	- / -	- / -	- / 6.300
Subtotal: Non-Recurring		- / 0.352	- / 0.710	- / 4.300	- / -	- / -	- / -	- / 6.300	- / -	- / -	- / 2.039	- / 5.287	- / 18.988
Subtotal: F-5 System Safety and Sustainability OSIP 017-17		- / 0.352	- / 0.710	89 / 10.790	16 / 1.280	- / -	16 / 1.280	36 / 34.967	38 / 33.832	28 / 15.693	6 / 16.145	6 / 19.627	219 / 133.396
Subtotal: Procurement, All Modification Items		- / 0.352	- / 0.710	- / 10.790	- / 1.280	- / -	- / 1.280	- / 34.967	- / 33.832	- / 15.693	- / 16.145	- / 19.627	- / 133.396
Support (All Modification Items)													
3.1) Other Support ⁽⁷⁾		- / -	- / -	- / 0.215	- / 0.216	- / -	- / 0.216	- / 2.810	- / 2.770	- / 0.941	- / 0.922	- / 0.736	- / 8.610
3.2) ILS ⁽⁸⁾		- / -	- / -	- / 0.185	- / 0.374	- / -	- / 0.374	- / 0.886	- / 0.948	- / 0.647	- / 0.330	- / 0.316	- / 3.686
3.3) Support Equipment ⁽⁹⁾		- / -	- / -	- / -	- / 1.545	- / -	- / 1.545	- / 1.189	- / 0.928	- / -	- / -	- / -	- / 3.662
Subtotal: Support		- / 0.000	- / -	- / 0.400	- / 2.135	- / -	- / 2.135	- / 4.885	- / 4.646	- / 1.588	- / 1.252	- / 1.052	- / 15.958

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0522 / Adversary				Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F-5 Adversary Series			Modification Type: Safety/Reliability					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation													
Modification Item 1 of 1: F-5 System Safety and Sustainability OSIP 017-17	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.880	- / 12.828	- / 16.253	- / 8.724	- / 12.708	- / 51.393	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.880	- / 12.828	- / 16.253	- / 8.724	- / 12.708	- / 51.393	
Total													
Total Cost (Procurement + Support + Installation)	0.352	0.710	11.190	3.415	0.000	3.415	40.732	51.306	33.534	26.121	33.387	200.747	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0522 / Adversary				Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Modification Item 1 of 1: F-5 System Safety and Sustainability OSIP 017-17												
Manufacturer Information												
Manufacturer Name: TBD - ARC 210 Radio						Manufacturer Location: TBD						
Administrative Leadtime (<i>in Months</i>): 4						Production Leadtime (<i>in Months</i>): 11						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Jan 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024					
Delivery Dates			Dec 2020	Dec 2021	Dec 2022	Dec 2023	Dec 2024					
Manufacturer Name: TBD - Swiss Reconfiguration						Manufacturer Location: TBD						
Administrative Leadtime (<i>in Months</i>): 5						Production Leadtime (<i>in Months</i>): 9						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates				Feb 2021	Feb 2022	Feb 2023	Feb 2024					
Delivery Dates				Nov 2022	Nov 2023	Nov 2024	Nov 2025					
Installation Information												
Method of Implementation: [none specified]:: Installation Name: A Kits Swiss Reconfiguration												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 11.468	- / -	- / -	0 / 0.000	6 / 11.468
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 14.969	- / -	0 / 0.000	7 / 14.969
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 7.401	0 / 0.000	3 / 7.401
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 6.424	3 / 6.424
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 6.284	3 / 6.284
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 11.468	7 / 14.969	3 / 7.401	6 / 12.708	22 / 46.546

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Exhibit P-3a, Individual Modification: PB 2020 Navy																						Date: March 2019									
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0522 / Adversary											Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17									
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:															
Modification Item 1 of 1: F-5 System Safety and Sustainability OSIP 017-17																															
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: A Kits Swiss Reconfiguration																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	2	1	3	2	1	1	-	1	1	6	22
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	2	1	3	2	1	1	-	1	7	22
Method of Implementation: [none specified]:: Installation Name: B Kits ARC-210																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.880	- / -	- / -	- / -	0 / 0.000	8 / 0.880																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.360	- / -	- / -	0 / 0.000	12 / 1.360																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.284	- / -	0 / 0.000	12 / 1.284																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.323	0 / 0.000	11 / 1.323																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.880	12 / 1.360	12 / 1.284	11 / 1.323	0 / 0.000	43 / 4.847																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	3	3	3	3	3	3	3	3	2	-	43
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	43
Method of Implementation (Organic): A Kits ARC-210 Radio - Not Installed														Installation Quantity: 43																	
Method of Implementation (Organic): LN 260 Display - Not Installed																															
Method of Implementation (Organic): LN 260 Display - Not Installed														Installation Quantity: 46																	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0522 / Adversary	Modification Number / Title: 2 / F-5 System Safety and Sustainability OSIP 017-17
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-5 System Safety and Sustainability OSIP 017-17		
Installation Information		
Method of Implementation (Organic): SACA - Not Installed		Installation Quantity: 43
Method of Implementation (Organic): B Kits Swiss Reconfiguration - Not Installed		Installation Quantity: 22
Footnotes: (1) ARC 210 installation will be by depot level field mod team installation (2) Forty F-5N aircraft have one display, and three F-5F aircraft have 2 displays each (40 + 6 = 46 units). (3) SACA is a squadron level install (4) LN 260 display is a squadron level install (5) Cost element funds initial non-recurring engineering in support of an ECP to modify the F-5 structure. (6) Cost element funds initial non-recurring engineering in support of the reconfiguration of the 22 Swiss aircraft into the USN configuration. (7) Increase in FY 2021 provides other support for Swiss aircraft reconfiguration efforts. (8) Increase in FY 2020 provides logistic support for ARC 210 retrofit efforts. Increase beginning in FY 2021 provides logistic support for Swiss aircraft reconfiguration efforts. (9) Increase in FY 2020 procures support equipment applicable to the ARC 210 retrofit efforts. Increase in FY 2021 and FY 2022 procures support equipment applicable to the Swiss reconfiguration efforts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0522 / Adversary						Modification Number / Title: 3 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	51.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.876
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	51.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.876
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	51.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.876
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0522 / Adversary					Modification Number / Title: 3 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 51.876	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 51.876	
Subtotal: Procurement	- / 51.876	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 51.876	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	51.876	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	51.876	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0525 / F-18 Series					
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: 000												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	9,684.609	1,007.030	1,159.675	1,207.089	0.000	1,207.089	1,293.248	1,502.252	1,936.725	1,898.026	7,770.655	27,459.309
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	9,684.609	1,007.030	1,159.675	1,207.089	0.000	1,207.089	1,293.248	1,502.252	1,936.725	1,898.026	7,770.655	27,459.309
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	9,684.609	1,007.030	1,159.675	1,207.089	0.000	1,207.089	1,293.248	1,502.252	1,936.725	1,898.026	7,770.655	27,459.309
<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: This line item funds modifications to all models of the F/A-18 aircraft. The F/A-18 Naval Strike Fighter is a twin-engine, mid-wing, multi-mission tactical aircraft. The F/A-18 is employed in both Navy and Marine Corps squadrons. Commencing with the FY 1988 procurement, both the single seat and two-seat F/A-18s include a night attack capability. The F/A-18 can be missionized through selected use of external equipment to accomplish specific fighter or attack missions. This commonality provides the Operational Commander more flexibility in employing tactical aircraft in a dynamic scenario. The primary design mission for the F/A-18 is a strike fighter which includes the traditional fighter applications, such as fighter escort and fleet air defense, combined with the attack applications, such as interdiction and close air support. Since fighter capabilities are available in either mission, a robust self-defense capability is retained. NOTE: Kit procurements were budgeted and executed properly, in alignment with planned organic depot inductions. Aircraft inductions have exceeded depot capacity due to many aircraft reaching service life limits at the same time, increased turnaround time due to material degradation and corrosion repairs over and above planned modification efforts, and delays caused by sequestration which increased the number of Out of Reporting (OOR) aircraft. Due to these depot constraints, prior year kit procurements became misaligned with aircraft installations. Depot level kit installations have been impacted by depot throughput constraints and backlog. The install schedules reflected in this budget take into account the current constrained depot throughput and backlog. Funds in this budget request are required for on-going modifications to address OOR aircraft. Current aircraft inventory as of 27 December 2018, Flight hours flown as of 1 September 2018: F/A-18A (Lots 7 - 9) - 62 (25 Active, 37 Reserve): service life 8,000 hours (current); 10,000 hours (extended); average service life remaining 11 hours (current); 2,011 hours (extended) F/A-18B (Lots 1 - 6) -2 (0 Active, 2 Reserve): service life 6,000 hours (current); average service life remaining 474 (current) F/A-18B (Lots 7 - 9) - 5 (3 Active, 2 Reserve): service life 8,000 hours (current); 10,000 hours (extended); average service life remaining 883 (current); 2,883 (extended) F/A-18C - 288 (240 Active, 48 Reserve): service life 8,000 hours (current); 10,000 hours (extended); average service life remaining 510 (current); 2,510 (extended) F/A-18D - 116 (110 Active, 6 Reserve): service life 8,000 hours (current); 10,000 hours (extended); average service life remaining 588 (current); 2,588 (extended) F/A-18E - 292 (Active): service life 6,000 hours (current); 10,000 hours (extended); average service life remaining 3,044 (current); 7,044 (extended) F/A-18F - 260 (Active): service life 6,000 hours (current); 10,000 hours (extended); average service life remaining 2,303 (current); 6,303 (extended) EA-18G - 156 (151 Active, 5 Reserve): service life 7,500 hours (current); average service life remaining 5,886 (current)												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0525 / F-18 Series					
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: 000										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Correction of Discrepancies (OSIP 11-84) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 1,336.831	- / 66.932	- / 67.260	- / 48.962	- / 0.000	- / 48.962
P-3a	2 / Digital Communications System (DCS) (OSIP 10-99) (CAPABILITY IMPROVEMENT)				- / 179.003	- / 18.140	- / 29.251	- / 13.271	- / 0.000	- / 13.271
P-3a	3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+ (SAFETY / LIFE EXTENSION)				- / 1,246.234	- / 74.220	- / 109.958	- / 96.883	- / 0.000	- / 96.883
P-3a	4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99) (CAPABILITY IMPROVEMENT)				- / 939.743	- / 26.953	- / 9.485	- / 9.085	- / 0.000	- / 9.085
P-3a	5 / USMC F/A-18 Upgrade ECP-583 (OSIP 21-00) (AVIONICS UPGRADE)				- / 444.859	- / 3.227	- / 0.000	- / 43.993	- / 0.000	- / 43.993
P-3a	6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00) (CAPABILITY IMPROVEMENT)				- / 306.625	- / 2.029	- / 2.843	- / 0.000	- / 0.000	- / 0.000
P-3a	7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01) (CAPABILITY IMPROVEMENTS)				- / 929.718	- / 30.577	- / 2.184	- / 9.763	- / 0.000	- / 9.763
P-3a	8 / F/A-18C/D/E/F and EA-18G Training System (OSIP 006-02) (TRAINERS UPGRADE)				- / 260.324	- / 10.808	- / 34.722	- / 29.770	- / 0.000	- / 29.770
P-3a	9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 876.631	- / 167.253	- / 136.952	- / 135.436	- / 0.000	- / 135.436
P-3a	10 / Core Avionics Improvements / Upgrades (OSIP 023-04) (Capability and Reliability Improvements)				- / 508.998	- / 79.852	- / 125.887	- / 126.224	- / 0.000	- / 126.224
P-3a	11 / Litening AT Targeting Pod (OSIP 024-04) (CAPABILITY IMPROVEMENTS)				- / 163.676	- / 1.285	- / 1.295	- / 0.630	- / 0.000	- / 0.630
P-3a	12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07) (AVIONICS UPGRADE)				- / 1,161.907	- / 77.474	- / 160.135	- / 148.981	- / 0.000	- / 148.981
P-3a	13 / EW Unique (OSIP 021-08) (Capability Improvements)				- / 197.902	- / 105.650	- / 41.302	- / 28.797	- / 0.000	- / 28.797
P-3a	14 / Network Centric Operations: (OSIP 001-10) (Avionics Upgrade)				- / 268.370	- / 13.029	- / 69.407	- / 52.080	- / 0.000	- / 52.080
P-3a	15 / EA-18G Unique OSIP (011-10) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 134.833	- / 40.476	- / 50.650	- / 73.527	- / 0.000	- / 73.527
P-3a	16 / Power and Propulsion (11-13) (Safety, Readiness, Reliability)				- / 76.132	- / 36.261	- / 68.212	- / 54.108	- / 0.000	- / 54.108
P-3a	17 / Infrared Search and Track (IRST) (04-14) (CAPABILITY IMPROVEMENTS)				- / 157.366	- / 134.034	- / 60.195	- / 85.835	- / 0.000	- / 85.835
P-3a	18 / Automated Information Systems (AIS) (OSIP 018-14) (Safety)				- / 126.671	- / 17.290	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14) (SAFETY / LIFE EXTENSION)				- / 80.018	- / 90.224	- / 150.586	- / 133.567	- / 0.000	- / 133.567
P-3a	20 / Priority Stores Integration (OSIP 10-16) (CAPABILITY IMPROVEMENT)				- / 23.359	- / 11.316	- / 8.495	- / 8.730	- / 0.000	- / 8.730
P-3a	21 / Physiological Episode (PE) Mitigation (OSIP 13-19) (Safety)				- / 0.000	- / 0.000	- / 30.856	- / 107.447	- / 0.000	- / 107.447
P-3a	22 / Inactive OSIPs (TBD)				- / 265.409	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 9,684.609	- / 1,007.030	- / 1,159.675	- / 1,207.089	- / 0.000	- / 1,207.089

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0525 / F-18 Series					
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: 000										
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Correction of Discrepancies (OSIP 11-84) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 57.998	- / 66.805	- / 98.907	- / 65.221	- / 215.614	- / 2,024.530
P-3a	2 / Digital Communications System (DCS) (OSIP 10-99) (CAPABILITY IMPROVEMENT)				- / 12.430	- / 18.149	- / 30.088	- / 32.072	- / 177.082	- / 509.486
P-3a	3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+ (SAFETY / LIFE EXTENSION)				- / 83.357	- / 89.690	- / 97.193	- / 99.137	- / 717.227	- / 2,613.899
P-3a	4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99) (CAPABILITY IMPROVEMENT)				- / 7.242	- / 6.072	- / 17.292	- / 31.001	- / 63.523	- / 1,110.396
P-3a	5 / USMC F/A-18 Upgrade ECP-583 (OSIP 21-00) (AVIONICS UPGRADE)				- / 39.993	- / 67.337	- / 1.051	- / 34.103	- / 100.100	- / 734.663
P-3a	6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00) (CAPABILITY IMPROVEMENT)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 311.497
P-3a	7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01) (CAPABILITY IMPROVEMENTS)				- / 9.670	- / 7.406	- / 47.150	- / 48.095	- / 284.855	- / 1,369.418
P-3a	8 / F/A-18C/D/E/F and EA-18G Training System (OSIP 006-02) (TRAINERS UPGRADE)				- / 30.144	- / 30.666	- / 34.481	- / 35.801	- / 530.923	- / 997.639
P-3a	9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 138.109	- / 171.348	- / 271.473	- / 310.551	- / 178.926	- / 2,386.679
P-3a	10 / Core Avionics Improvements / Upgrades (OSIP 023-04) (Capability and Reliability Improvements)				- / 154.743	- / 190.357	- / 208.455	- / 211.785	- / 1,890.637	- / 3,496.938
P-3a	11 / Litening AT Targeting Pod (OSIP 024-04) (CAPABILITY IMPROVEMENTS)				- / 0.637	- / 0.315	- / 0.000	- / 0.000	- / 0.000	- / 167.838
P-3a	12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07) (AVIONICS UPGRADE)				- / 82.093	- / 63.026	- / 142.941	- / 145.801	- / 3.799	- / 1,986.157
P-3a	13 / EW Unique (OSIP 021-08) (Capability Improvements)				- / 30.353	- / 31.660	- / 34.797	- / 35.493	- / 80.018	- / 585.972
P-3a	14 / Network Centric Operations: (OSIP 001-10) (Avionics Upgrade)				- / 34.338	- / 58.267	- / 78.882	- / 40.459	- / 271.398	- / 886.230
P-3a	15 / EA-18G Unique OSIP (011-10) (SAFETY /RELIABILITY/IMPROVEMENT)				- / 89.990	- / 104.758	- / 91.307	- / 93.133	- / 52.595	- / 731.269
P-3a	16 / Power and Propulsion (11-13) (Safety, Readiness, Reliability)				- / 55.739	- / 60.343	- / 71.134	- / 70.783	- / 0.000	- / 492.712
P-3a	17 / Infrared Search and Track (IRST) (04-14) (CAPABILITY IMPROVEMENTS)				- / 185.110	- / 229.598	- / 199.719	- / 208.859	- / 321.601	- / 1,582.317
P-3a	18 / Automated Information Systems (AIS) (OSIP 018-14) (Safety)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 143.961
P-3a	19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14) (SAFETY / LIFE EXTENSION)				- / 187.801	- / 243.414	- / 461.418	- / 387.300	- / 2,824.885	- / 4,559.213
P-3a	20 / Priority Stores Integration (OSIP 10-16) (CAPABILITY IMPROVEMENT)				- / 9.936	- / 10.510	- / 14.542	- / 12.380	- / 31.872	- / 131.140
P-3a	21 / Physiological Episode (PE) Mitigation (OSIP 13-19) (Safety)				- / 83.565	- / 52.531	- / 35.895	- / 36.052	- / 25.600	- / 371.946
P-3a	22 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 265.409
P-40	Total Gross/Weapon System Cost				- / 1,293.248	- / 1,502.252	- / 1,936.725	- / 1,898.026	- / 7,770.655	- / 27,459.309

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0525 / F-18 Series
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: 000		
*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 overall goal of the modifications budgeted in FY 2020 is to implement commonality/capability and structural safety and reliability improvements. United States Marine Corps (USMC) capability updates are included with this budget request and have been allocated to OSIP 21-00. The FY 2020 funding request was reduced by \$100.000 million to account for the availability of prior year execution balances. Justifications for the changes in the budget from FY19 to FY20 are as follows: OSIP 11-84 decrease is due to transition of the US Navy from the F/A-18A-D legacy program, resulting in less Engineering Change Proposal (ECP) kit quantities being procured and installed. This OSIP addresses F/A-18 A-D aircraft correction of deficiencies discovered during sustainment activities, engineering analysis, standard depot level evaluations, and/or normal fleet operations by implementing ECPs to modify, improve, and restore aircraft structural and sub-systems safety and reliability to designed aircraft life limits. OSIP 10-99 decrease is due to reduced NRE efforts for ECP 6486. This OSIP funds the RT-2036 radio which is a modernized cryptographic radio that provides SATURN MUOS SATCOM capability along with UHF and VHF. OSIP 11-99 decrease is due to a reduction in Center Barrel (CBR) installations from a quantity of 14 in FY19 to a quantity of 11 in FY20. This reduction reflects the USN divestiture decision. This OSIP incorporates aircraft structural and sub-systems modifications that are required to attain required F/A-18A-D service life, and maintain sufficient aircraft inventory to meet fleet operational requirements through FY 2030. OSIP 12-99 decrease is due to FY19 being the last year of procurement for MIDS JTRS cable sets. This OSIP funds MIDS JTRS, which is a 4th Generation LINK 16 terminal. It provides secure, jam-resistant, high throughput digital and data communications that supports positive identification, precise location, situational awareness, sensor to shooter coordination, and reduction of fratricide between U.S. and Allied aircraft, maritime and ground forces. OSIP 21-00 increase is due to the realignment of USMC capability requirements from other component OSIPs into a single USMC OSIP in FY20. This OSIP funds upgrades for USMC F/A-18A/B/C/D aircraft structural and avionics, including hardware and software capabilities, in order to meet mission-critical requirements of the USMC Tactical Aircraft Integration Plan while implementing upgraded cockpit displays and improving flight safety. OSIP 24-00 decrease is due to completion of JHMCS installs and associated support costs. This OSIP provides the fleet with JHMCS to cue onboard weapons to the pilot's line of sight including high off boresight weapons. This OSIP provides the fleet with JHMCS to cue onboard weapons to the pilot's line of sight including high off boresight weapons. OSIP 12-01 increase is due to Non-Recurring Engineering (NRE) for Advanced Targeting Forward Looking Infrared (ATFLIR) Modernization Upgrade. This OSIP funds ATFLIR improvements. OSIP 06-02 decrease is due to a reduction of Aircrew Trainer modifications / software updates. This OSIP funds F/A-18C-F and EA-18G aircrew and maintenance training systems to support software concurrency capabilities to meet current fleet readiness squadron and fleet training and readiness requirements to increase the simulation fidelity of aircraft driven changes implemented across a distributed architecture and simulated threat environment. OSIP 14-03 decrease is due to decreased Trailing Edge Flap procurements, from a quantity of 48 in FY19 to a quantity of 14 in FY20. This OSIP funds modifications required for the Super Hornet and Growler in order to correct aircraft discrepancies and life limited locations required to continue to fly the aircraft to its design life. OSIP 23-04 increase is due to increased NRE efforts for FCNS-24. This OSIP funds F/A-18 System Configuration Set (SCS) mission computer software and SCS-driven improvements to Joint Mission Planning System (JMPS), the F/A 18A F and EA-18G Automated Maintenance Environment (AME) Prime system, Weaponeeing, retrofit modifications, associated test verification, and improvements driven by aircraft		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0525 / F-18 Series
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: 000		
avionics modifications and fleet requirements. JMPS includes unique hardware and software updates and improvements, retrofit modifications, and associated test verification. The AME Prime system allows the maintainer to safely perform maintenance on the F/A-18A-F and EA-18G by using Interactive electronic publications, maintenance documentation environment and work stations.		
OSIP 24-04 decrease is due to reduced LITENING installs. This OSIP funds F/A-18 LITENING updates.		
OSIP 02-07 increase is due to a increased software efforts. This OSIP funds the integration of Counter-Electronic Attack capability for the APG-79 Radar, procures Configuration D Kits to enable CEA capabilities, and funds radar obsolescence mitigations for APG-65/73 and APG-79 radars to improve Fleet Readiness.		
OSIP 21-08 decrease is due to reduced procurement of ALQ-67V(3) kits from 34 in FY19 to 5 in FY20. This OSIP funds ALR-67(V)3 radar warning receiver systems and ALQ-214(V)4/5 self-protection onboard jammer systems - the two major systems comprising the Integrated Defensive Electronic Countermeasures Electronic Warfare suite which detects, identifies and manages electronic countermeasure response to radar threats.		
OSIP 01-10 decrease is due to net changes which include a decrease in NRE for the Distributed Targeting Network Processor (DTP-N) ECP effort which was completed in FY19 and the initial procurement of DTP-N kits in FY20. This OSIP provides the fleet with a common capability that includes Distributed Targeting System (DTS), and Digital Memory Device (DMD) or Digital Transfer Unit (DTU) to support all mission areas and establish common configuration across F-18 Block II aircraft.		
OSIP 11-10 increase is due to increased ECP-6482 kit procurements from 12 in FY19 to 49 in FY20. This OSIP incorporates ECPs, software upgrades, support equipment and other support for increased lethality in the electronic warfare arena; primarily driven by ALQ-218 modifications to better increase emitter detection.		
OSIP 11-13 decrease is due to decreased kit procurements of Generator Converter Unit (GCU) kit procurements from 325 in FY19 to 229 in FY20. This OSIP addresses the reliability and maintainability shortfalls of the F/A-18E/F and EA-18G GCU, the top degrader in the fleet, through procurement of GCU upgrade kits that will increase reliability from 109 hours to 285 hours between removals, directly reducing demand and allowing limited repair production capacity to support deployed aircraft.		
OSIP 04-14 increase is due to increased Block II kit procurements from 6 in FY19 to 12 in FY20, and IRST Block II Support Equipment. This OSIP funds engineering and procurement of Block II pods and related support which will provide an out of band, long range passive detection and track capability as an alternate fire control system in a high threat electronic attack (RADAR denied) environment to support target breakout and weapons quality tracks in both day and night operations.		
OSIP 18-14 decreases in FY19 / FY20 are due to realignment of software driven requirements to OSIP 23-04.		
OSIP 20-14 decrease is due to a reduction in Service Life Extension Plan (SLEP) NRE for ECP development. This OSIP funds modifications required to extend the F/A-18E/F service life and maintain sufficient aircraft inventory to meet fleet operational requirements through FY2043.		
OSIP 10-16 increase is due to increased weapons software updates. This OSIP funds facilitate priority stores integrations, to include software changes to accommodate AIM-120 advanced medium range air to air missile single carriage on F/A-18E/F midboard station and air worthiness analysis and/or certification to support fleet requests, such as Joint Direct Attack Munition, hot loading, and air launched decoy.		
OSIP 13-19 increase is due to kit procurement increase from 1614 kits in FY19 to 1788 in FY20, as well as increased support and PE Support Equipment procurements. This OSIP funds modifications to mitigate aircrew Physiological Episodes (PE) in F/A-18 A-F and E/A-18G by correcting aircraft deficiencies and addressing safety and reliability issues via ECPs.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1,336.831	66.932	67.260	48.962	0.000	48.962	57.998	66.805	98.907	65.221	215.614	2,024.530
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1,336.831	66.932	67.260	48.962	0.000	48.962	57.998	66.805	98.907	65.221	215.614	2,024.530
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1,336.831	66.932	67.260	48.962	0.000	48.962	57.998	66.805	98.907	65.221	215.614	2,024.530
<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: Corrections to discrepancies found during testing and evaluation can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the aircraft modification program. Additionally, aircraft discrepancies can be discovered during sustainment activities, engineering analysis, standard depot level evaluations, and/or during normal fleet operations. Not addressing these structural and system discrepancies will create maintenance and supply problems, and adversely impact safety of flight and operational readiness. This Operational, Safety and Improvement Program (OSIP) provides resources to correct such issues via Engineering Change Proposal (ECP) and other applicable procurement efforts by modifying, improving, and restoring aircraft structural safety and reliability to designed/required life limits. Modifications for the F/A-18 A/B/C/D aircraft include: flight controls, forward fuselage, aft fuselage, wing, critical structures, electrical, hydraulic, Environmental Control Systems (ECS), launch and recovery, fuel, mechanical, secondary power, Blue Angel modifications, and other modification efforts. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Each change has been or will be tested prior to installation into the F/A-18. NOTE: Kit procurements were budgeted and executed properly, in alignment with planned organic depot inductions. Aircraft inductions have exceeded depot capacity due to many aircraft reaching service life limits at the same time, increased turnaround time due to material degradation and corrosion repairs over and above planned modification efforts, and delays caused by sequestration which increased the number of Out of Reporting (OOR) aircraft. Due to these depot constraints, prior year kit procurements became misaligned with aircraft installations. Depot level kit installations have been impacted by depot throughput constraints and backlog. The install schedules reflected in this budget take into account the current constrained depot throughput and backlog.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D				Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:				
Financial Plan		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
(*) Indicates the modification is being installed organically and no installation funds are required.		Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (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													
1.1.1) ECP 608 Crease Longerons - NonOrganic ⁽¹⁾ Installation 1 of 8		49 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	49 / 0.000
1.1.2) ECP 609 Inner Wing Conversion/ Modification - Fuel Improvements - NonOrganic Installation 1 of 8		47 / 0.782	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	47 / 0.782
1.1.3) ECP 609 Inner Wing Conversion/ Modification - NonOrganic Installation 1 of 8		30 / 4.195	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 4.195
1.1.4) ECP 796 Wing Fuel Dams - NonOrganic Installation 1 of 8		486 / 0.698	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	486 / 0.698
1.1.5) ECP 973 Fuel Cell Floor Crack - NonOrganic Installation 1 of 8		250 / 2.340	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	250 / 2.340
1.1.6) ECP 1034 NI Trailing Edge Flap (AYC-1460) - NonOrganic Installation 1 of 8		618 / 4.469	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	618 / 4.469
1.1.7) ECP 1034 NI Ailerons Attach Lug Bushing (AYC-1481) - NonOrganic Installation 1 of 8		618 / 1.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	618 / 1.771
1.1.9) ECP 1100 F/A-18 A-D Keel Beam Web Retrofit - NonOrganic Installation 1 of 8		189 / 0.159	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	189 / 0.159
1.1.10) ECP 1101 Inner Wing AFT Closure Rib - NonOrganic Installation 1 of 8		198 / 14.071	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	198 / 14.071
1.1.11) ECP 1102 Y508 Former Shear Tie Fastener Holes Retrofit - NonOrganic Installation 1 of 8		608 / 1.930	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	608 / 1.930
1.1.12) ECP 1118NI F/A-18 A-D Y580.5/Y590.5 Former Replacement Modline - NonOrganic Installation 1 of 8		202 / 14.286	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	202 / 14.286
1.1.13) ECP 1120NI F/A-18 A-D Upper O/B Longerons Y453/Y508 Fw Section Splice - NonOrganic Installation 1 of 8		170 / 4.453	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	170 / 4.453
1.1.16) ECP 1125 F/A-18 A-D Y470 Inner Wing Panel Lug - NonOrganic Installation 1 of 8		184 / 0.356	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	184 / 0.356
1.1.18) ECP-1142NI Y326.5 Lead Edge Ext (LEX) Spt Fitting & Substructure - NonOrganic Installation 1 of 8		523 / 1.085	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	523 / 1.085
1.1.19) ECP-1142C1NI Y394.2 LEX Connecting Link Retrofit - NonOrganic		454 / 0.218	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	454 / 0.218

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 1 of 8													
1.1.21) ECP 1148NI Speed Brake Arresting Hook Actuator Fitting Retrofit - NonOrganic Installation 1 of 8	370 / 3.508	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	370 / 3.508	
1.1.24) ECP 1159 - Y557.5 Bulkhead Tub Retrofit - NonOrganic Installation 1 of 8	587 / 2.622	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	587 / 2.622	
1.1.26) ECP-1209 Outer Wing Panel 68% Spar - NonOrganic ⁽²⁾ Installation 1 of 8	482 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	482 / 0.000	
1.1.27) ECP-1211 Replacing Aging Fraying Flight Control and Brake Cables - NonOrganic Installation 1 of 8	120 / 0.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	120 / 0.470	
1.1.28) ECP 6217 Cockpit Pressurization Warning System - NonOrganic Installation 1 of 8	630 / 8.670	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	630 / 8.670	
1.1.29) ECP 6321R1 F/A-18 A-D Main Landing Gear Door Hinge Pins - NonOrganic Installation 1 of 8	640 / 1.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	640 / 1.265	
1.1.31) ECP JAX F-18-001 NFDS mods, C&D Conversion (Blue Angels) - NonOrganic Installation 1 of 8	28 / 8.718	1 / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 9.218	
1.1.8) ECP 1098NI F/A-18 A-D Y615 Former and Bootstrap Retrofit - NonOrganic Installation 2 of 8	349 / 17.537	60 / 3.180	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	409 / 20.717	
1.1.14) ECP 1121 F/A-18 A-D MLG Critical Components Retrofit - Organic ^(*)	8 / 65.209	- / 0.700	- / -	100 / 0.005	- / -	100 / 0.005	100 / 0.005	92 / 0.005	- / -	- / -	- / -	300 / 65.924	
1.1.15) ECP 1122 F/A-18 A-D NLG Critical Components Retrofit - Organic ^(*)	8 / 21.556	- / -	- / -	100 / 0.005	- / -	100 / 0.005	100 / 0.005	92 / 0.005	- / -	- / -	- / 19.149	300 / 40.720	
1.1.17) ECP 1137NI Fire Extinguisher Temp Compensating Pressure Switch - NonOrganic Installation 3 of 8	285 / 0.136	190 / 0.161	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	475 / 0.297	
1.1.20) ECP-1142C2 LEX Support Assy 74T030317 Replacement - NonOrganic Installation 4 of 8	- / -	- / -	20 / 0.014	10 / 0.007	- / -	10 / 0.007	10 / 0.007	10 / 0.007	10 / 0.008	10 / 0.008	380 / 0.206	450 / 0.257	
1.1.22) ECP-1155 NI Fuel Tank Four Cavity Foam Material Change - NonOrganic Installation 5 of 8	450 / 0.365	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	450 / 0.365	
1.1.23) ECP 1155C1 NI Motive Flow Bulkhead Replacement - NonOrganic Installation 6 of 8	450 / 2.071	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	450 / 2.071	

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D				Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
1.1.25) ECP 1176 NI OWP Missile Support Rib Retrofit - NonOrganic Installation 7 of 8	107 / 12.106	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.352	68 / 16.099	15 / 3.504	38 / 8.713	234 / 41.774	
1.1.30) ECP-6495: Servocylinder Test Station Obsolescence Upgrade - Organic(*)	- / -	- / -	- / -	1 / 0.250	- / -	1 / 0.250	1 / 0.250	1 / 0.250	1 / 0.250	- / -	20 / 5.000	24 / 6.000	
1.1.32) ECP XXX26 Structural Stress Corrosion Crack Issues - NonOrganic Installation 8 of 8	- / -	- / -	36 / 2.047	12 / 0.695	- / -	12 / 0.695	12 / 0.707	12 / 0.720	12 / 0.733	12 / 0.746	379 / 21.555	475 / 27.203	
1.1.33) ECP XXX27 F/A-18 A-D Subsystems Retrofit Upgrades Issues - NonOrganic Installation 8 of 8	- / -	- / -	36 / 1.638	12 / 0.556	- / -	12 / 0.556	12 / 0.566	12 / 0.576	12 / 0.586	12 / 0.597	379 / 17.244	475 / 21.763	
1.1.34) ECP XXX28 F/A-18 A-D ECS Subsystems Upgrade Issues - NonOrganic Installation 8 of 8	- / -	- / -	36 / 1.004	12 / 0.341	- / -	12 / 0.341	12 / 0.347	12 / 0.353	12 / 0.359	12 / 0.366	379 / 10.566	475 / 13.336	
1.1.36) ECP-XXX30 F/A-18 A-D Flight Control Surfaces Issues - NonOrganic Installation 8 of 8	- / -	- / -	36 / 0.409	12 / 0.139	- / -	12 / 0.139	12 / 0.142	12 / 0.144	12 / 0.147	12 / 0.149	379 / 4.311	475 / 5.441	
1.1.35) ECP XXX29 F/A-18 A-D Fuel Related Upgrade Issues - Organic(*)	- / -	- / -	36 / 0.401	12 / 0.136	- / -	12 / 0.136	12 / 0.139	12 / 0.141	12 / 0.144	12 / 0.146	379 / 4.226	475 / 5.333	
1.1.37) ECP-XXX33 - F/A-18 A-D NACES Retrofit Upgrades - Organic(*) (3)	- / -	- / -	36 / 0.498	12 / 0.169	- / -	12 / 0.169	12 / 0.172	12 / 0.175	12 / 0.178	20 / 0.181	379 / 5.239	483 / 6.612	
1.1.38) ECP-6488 (SBAR) Kits - Organic(*) (4)	- / -	250 / 10.584	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	250 / 10.584	
1.1.39) ECP-6506 (CPOMs) Kits - Organic(*) (5)	- / -	421 / 8.147	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	421 / 8.147	
1.1.40) Archived ECPs - Organic(*)	- / 237.995	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 239.495	
1.2.1) Installation Kits N/R - Organic(*)	- / 78.589	- / 4.182	- / 3.465	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 86.236	
2.1.1) Installation Equipment - Organic(*)	- / 2.267	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.267	
2.2.1) Installation Equipment N/R - Organic(*)	- / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	
Subtotal: Procurement	- / 514.017	- / 28.954	- / 9.476	- / 2.303	- / -	- / 2.303	- / 2.340	- / 3.728	- / 18.504	- / 5.697	- / 96.209	- / 681.228	
Support													
3.2) Data	- / 16.628	- / 0.021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.649	
3.4) Support Equipment	- / 32.464	- / 4.423	- / 5.166	- / 4.297	- / -	- / 4.297	- / 3.564	- / 4.611	- / 5.499	- / 4.662	- / 2.742	- / 67.428	
3.5) ILS	- / 379.544	- / 4.909	- / 5.007	- / 5.107	- / -	- / 5.107	- / 5.209	- / 5.313	- / 5.420	- / 5.528	- / 7.105	- / 423.142	
3.6) Other Support	- / 109.793	- / 16.112	- / 15.527	- / 16.261	- / -	- / 16.261	- / 16.627	- / 16.999	- / 17.379	- / 17.767	- / 20.574	- / 247.039	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D				Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT				Related RDT&E PEs:					
Financial Plan (") Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.8) Prior Year Installation Costs	36,016 / 226.255	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36,016 / 226.255	
<i>Subtotal: Support</i>	- / 764.684	- / 25.465	- / 25.700	- / 25.665	- / -	- / 25.665	- / 25.400	- / 26.923	- / 28.298	- / 27.957	- / 30.421	- / 980.513	
Installation													
Installation 1 of 8: GRP: Prior Year Procurements	- / 50.137	- / 11.786	- / 28.818	- / 16.888	- / 0.000	- / 16.888	- / 19.901	- / 28.047	- / 46.305	- / 19.496	- / 14.827	- / 236.205	
Installation 2 of 8: ECP 1098NI F/A-18 A-D Y615 Former and Bootstrap Retrofit	- / 7.911	- / 0.693	- / 2.822	- / 2.248	- / 0.000	- / 2.248	- / 3.654	- / 0.893	- / 1.313	- / -	- / 0.000	- / 19.534	
Installation 3 of 8: ECP 1137NI Fire Extinguisher Temp Compensating Pressure Switch	- / 0.000	- / -	- / -	- / 0.361	- / 0.000	- / 0.361	- / 0.317	- / -	- / -	- / -	- / 0.000	- / 0.678	
Installation 4 of 8: ECP-1142C2 LEX Support Assy 74T030317 Replacement	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.305	- / 0.155	- / 0.158	- / 0.161	- / 0.567	- / 1.346	
Installation 5 of 8: ECP-1155 NI Fuel Tank Four Cavity Foam Material Change	- / 0.082	- / 0.034	- / 0.034	- / 0.035	- / 0.000	- / 0.035	- / 0.028	- / -	- / -	- / -	- / 0.000	- / 0.213	
Installation 6 of 8: ECP 1155C1 NI Motive Flow Bulkhead Replacement	- / -	- / -	- / 0.410	- / 0.418	- / 0.000	- / 0.418	- / 0.425	- / 0.317	- / -	- / -	- / 0.000	- / 1.570	
Installation 7 of 8: ECP 1176 NI OWP Missile Support Rib Retrofit	- / -	- / -	- / -	- / 1.044	- / 0.000	- / 1.044	- / 1.063	- / 2.193	- / 2.752	- / 10.304	- / 24.264	- / 41.620	
Installation 8 of 8: GRP: ECPs XX26, XXX27, XXX28, XXX30	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.565	- / 4.549	- / 1.577	- / 1.606	- / 49.326	- / 61.623	
<i>Subtotal: Installation</i>	- / 58.130	- / 12.513	- / 32.084	- / 20.994	- / -	- / 20.994	- / 30.258	- / 36.154	- / 52.105	- / 31.567	- / 88.984	- / 362.789	
Total													
Total Cost (Procurement + Support + Installation)	1,336.831	66.932	67.260	48.962	0.000	48.962	57.998	66.805	98.907	65.221	215.614	2,024.530	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 8: GRP: Prior Year Procurements																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: Prior Year Procurements																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		3,055 / 50.137		819 / 11.663		1,001 / 28.818		642 / 16.888		0 / 0.000		642 / 16.888		477 / 19.901		335 / 28.047		429 / 46.305		160 / 19.496		565 / 14.827		7,483 / 236.082							
FY 2018		- / -		1 / 0.123		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.123							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		3,055 / 50.137		820 / 11.786		1,001 / 28.818		642 / 16.888		0 / 0.000		642 / 16.888		477 / 19.901		335 / 28.047		429 / 46.305		160 / 19.496		565 / 14.827		7,484 / 236.205							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3,055	212	210	204	194	259	260	257	225	169	169	163	141	137	138	135	67	86	86	85	78	112	111	111	95	43	43	43	31	565	7,484
Out	3,055	212	210	204	194	259	260	257	225	169	169	163	141	137	138	135	67	86	86	85	78	112	111	111	95	43	43	43	31	565	7,484

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 8: ECP 1098NI F/A-18 A-D Y615 Former and Bootstrap Retrofit																															
Manufacturer Information																															
Manufacturer Name: CKA/NGC- ECP 1098NI F/A-18 A-D Y615 Former and Bootstrap Retrofit															Manufacturer Location: Orange Park, FL; El Segundo, CA																
Administrative Leadtime (<i>in Months</i>): 10															Production Leadtime (<i>in Months</i>): 26																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jul 2018																													
Delivery Dates		Sep 2020																													
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP 1098NI F/A-18 A-D Y615 Former and Bootstrap Retr																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		167 / 7.911		15 / 0.693		60 / 2.822		48 / 2.248		0 / 0.000		48 / 2.248		15 / 0.693		18 / 0.893		26 / 1.313		- / -		0 / 0.000		349 / 16.573							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		60 / 2.961		- / -		- / -		- / -		0 / 0.000		60 / 2.961							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		167 / 7.911		15 / 0.693		60 / 2.822		48 / 2.248		0 / 0.000		48 / 2.248		75 / 3.654		18 / 0.893		26 / 1.313		- / -		0 / 0.000		409 / 19.534							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	167	3	4	4	4	15	15	15	15	12	12	12	12	18	19	19	19	5	5	4	4	9	9	8	-	-	-	-	-	-	-
Out	167	3	4	4	4	15	15	15	15	12	12	12	12	18	19	19	19	5	5	4	4	9	9	8	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019																								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)																							
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:																								
Installation 3 of 8: ECP 1137NI Fire Extinguisher Temp Compensating Pressure Switch																															
Manufacturer Information																															
Manufacturer Name: Meggitt - ECP 1137/Redesign of Fire Extinguisher Temp. Compensating Pressure Switch							Manufacturer Location: Simi Valley, CA																								
Administrative Leadtime (in Months): 12							Production Leadtime (in Months): 24																								
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates	Sep 2018																														
Delivery Dates	Sep 2020																														
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: ECP 1137NI Fire Extinguisher Temp Compensating Press																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 0.000	- / -	- / -	283 / 0.361	0 / 0.000	283 / 0.361	- / -	- / -	- / -	- / -	0 / 0.000	285 / 0.361																			
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	190 / 0.317	- / -	- / -	- / -	0 / 0.000	190 / 0.317																			
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total	2 / 0.000	- / -	- / -	283 / 0.361	0 / 0.000	283 / 0.361	190 / 0.317	- / -	- / -	- / -	0 / 0.000	475 / 0.678																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	70	71	71	71	45	45	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	475
Out	2	-	-	-	-	-	-	-	-	70	71	71	71	45	45	50	50	-	-	-	-	-	-	-	-	-	-	-	-	-	475

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 8: ECP-1142C2 LEX Support Assy 74T030317 Replacement																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 18																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates						Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024				Sep 2025					
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: ECP-1142C2 LEX Support Assy 74T030317 Replacement																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		20 / 0.305		- / -		- / -		- / -		0 / 0.000		20 / 0.305								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.155		- / -		- / -		0 / 0.000		10 / 0.155								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.158		- / -		0 / 0.000		10 / 0.158								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.161		0 / 0.000		10 / 0.161								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.158		10 / 0.158								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.161		10 / 0.161								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		380 / 0.248		380 / 0.248								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.305		10 / 0.155		10 / 0.158		10 / 0.161		400 / 0.567								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	5	5	3	3	2	2	3	3	2	2	3	3	2	2	400	450
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	3	3	2	2	3	3	2	2	3	3	2	2	400	450

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 8: ECP-1155 NI Fuel Tank Four Cavity Foam Material Change																															
Manufacturer Information																															
Manufacturer Name: CKA - ECP-1155 NI Fuel Tank Four Cavity Foam Material Change															Manufacturer Location: Orange Park, FL																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-1155 NI Fuel Tank Four Cavity Foam Material Chan																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		178 / 0.082		72 / 0.034		72 / 0.034		72 / 0.035		0 / 0.000		72 / 0.035		56 / 0.028		- / -		- / -		- / -		- / -		0 / 0.000		450 / 0.213					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		178 / 0.082		72 / 0.034		72 / 0.034		72 / 0.035		0 / 0.000		72 / 0.035		56 / 0.028		- / -		- / -		- / -		- / -		0 / 0.000		450 / 0.213					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	178	18	18	18	18	18	18	18	18	18	18	18	18	14	14	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	178	18	18	18	18	18	18	18	18	18	18	18	18	14	14	14	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 8: ECP 1155C1 NI Motive Flow Bulkhead Replacement																															
Manufacturer Information																															
Manufacturer Name: CKA - ECP-1155 Motive Flow Bulkhead Replacement															Manufacturer Location: Orange Park, FL																
Administrative Leadtime (<i>in Months</i>): 0															Production Leadtime (<i>in Months</i>): 18																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP 1155C1 NI Motive Flow Bulkhead Replacement																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		120 / 0.410		120 / 0.418		0 / 0.000		120 / 0.418		120 / 0.425		90 / 0.317		- / -		- / -		0 / 0.000		450 / 1.570							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -		- / -		120 / 0.410		120 / 0.418		0 / 0.000		120 / 0.418		120 / 0.425		90 / 0.317		- / -		- / -		0 / 0.000		450 / 1.570							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	30	24	22	22	22	-	-	-	-	-	-	-	-	-	450
Out	-	-	-	-	-	30	30	30	30	30	30	30	30	30	30	30	30	24	22	22	22	-	-	-	-	-	-	-	-	-	450

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 8: ECP 1176 NI OWP Missile Support Rib Retrofit																															
Manufacturer Information																															
Manufacturer Name: CKA-ECP 1176 NI OWP Missile Support Rib Retrofit															Manufacturer Location: Orange Park, FL																
Administrative Leadtime (in Months): 11															Production Leadtime (in Months): 24																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																		Sep 2022				Sep 2023				Sep 2024					
Delivery Dates																		Sep 2024				Sep 2025				Sep 2026					
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: ECP 1176 NI OWP Missile Support Rib Retrofit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.044		0 / 0.000		6 / 1.044		6 / 1.063		16 / 2.193		16 / 2.752		57 / 10.304		6 / 1.200		107 / 18.556								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 1.121		6 / 1.121								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		68 / 12.261		68 / 12.261								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 2.705		15 / 2.705								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		38 / 6.977		38 / 6.977								
Total		- / -	- / -		- / -		6 / 1.044		0 / 0.000		6 / 1.044		6 / 1.063		16 / 2.193		16 / 2.752		57 / 10.304		133 / 24.264		234 / 41.620								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	4	4	4	4	4	4	4	4	15	14	14	14	133	234
Out	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	-	4	4	4	4	4	4	4	4	15	14	14	14	133	234

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 8: GRP: ECPs XX26, XXX27, XXX28, XXX30																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP XXX27/28/30/F/A-18 A-D Structural Stress Corrosion Cracking Issues															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 18																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates						Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024				Sep 2025					
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: ECPs XX26, XXX27, XXX28, XXX30																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		144 / 4.565		- / -		- / -		- / -		- / -		0 / 0.000		144 / 4.565					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 1.549		- / -		- / -		- / -		0 / 0.000		48 / 1.549					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 3.000		48 / 1.577		- / -		- / -		0 / 0.000		48 / 4.577					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 1.606		0 / 0.000		48 / 1.606		48 / 1.606					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 1.477		48 / 1.477		48 / 1.477					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 1.477		48 / 1.477		48 / 1.477					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1,516 / 46.372		1,516 / 46.372		1,516 / 46.372					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		144 / 4.565		48 / 4.549		48 / 1.577		48 / 1.606		1,612 / 49.326		1,900 / 61.623					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	36	12	12	12	12	12	12	12	12	12	12	12	12	1,612	1,900
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	36	36	36	36	12	12	12	12	12	12	12	12	12	12	12	12	1,612	1,900
Footnotes:																															
(1) These are in-warranty kits so there is no kit cost. There is no lead time for kits.																															
(2) Kits are not required. Only templates and installs.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 1 / Correction of Discrepancies (OSIP 11-84)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(3) Variants include single and dual seats, therefore some aircraft require 2 kits. (4) Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts. (5) Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 2 / Digital Communications System (DCS) (OSIP 10-99)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	179.003	18.140	29.251	13.271	0.000	13.271	12.430	18.149	30.088	32.072	177.082	509.486
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	179.003	18.140	29.251	13.271	0.000	13.271	12.430	18.149	30.088	32.072	177.082	509.486
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	179.003	18.140	29.251	13.271	0.000	13.271	12.430	18.149	30.088	32.072	177.082	509.486
<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 Digital Communications System (DCS) consists of an upgraded AN/ARC-210 Receiver Transmitter (RT) (with embedded digital message transfer capability and embedded communications security) installed in the F/A-18 and integrated with the F/A-18 weapons system (mission computer, controls and displays, and communication subsystem). The DCS utilizes pre-formatted messages to communicate with standard United States Marine Corps, United States Navy, and United States Air Force digital communications devices to facilitate close air support, deep air strike, and tactical air control missions. Joint Staff has specified new requirements for close air support platforms to improve interoperability between air and ground units in Digitally-Aided Close Air Support (DACAS) missions. These requirements are being satisfied with the upgrade of the DCS radio to the ARC-210 RT-1990 radio. DCS reduces voice communications requirements which tend to be slow, inaccurate, and susceptible to Meaconing, Interference, Jamming, and Intrusion. DCS will enhance mission effectiveness by decreasing pilot workload which allows the pilot more time to counter increased threat capabilities (operational requirements document# 486-88-98). The RT-1990 radio also supports the North Atlantic Treaty Organization (NATO) standard anti-jam waveform, Second generation Anti-jam Tactical UHF radio for NATO (SATURN), and will greatly improve communication in a jamming environment as compared to current anti-jam waveforms. The next version of ARC-210, RT-1990A, and the next version of the Comm1 external encryptor, KY-58M, will support National Security Agency cryptographic modernization mandates and the instruction CJCSI 6510.02E Cryptographic Modernization Planning. This operational safety improvement program will also be used to address parts obsolescence issues and to perform non-recurring work associated with network centric operations and interoperability requirements. The RT-2036 is the next version of the ARC-210, and supports Mobile User Objective System (MUOS) SATCOM. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: RT-2036 will be integrated into aircraft in FY21; fleet release in H18 SCS.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 2 / Digital Communications System (DCS) (OSIP 10-99)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 and EA-18G			Modification Type: CAPABILITY IMPROVEMENT					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Digital Communications System (DCS) (OSIP 10-99)													
A Kits													
Recurring													
1.1.1) RT-2036: SATCOM (ECP6486) - NonOrganic		- / -	- / -	- / -	2 / 0.177	- / -	2 / 0.177	26 / 2.346	36 / 3.303	82 / 7.651	82 / 7.781	345 / 33.295	573 / 54.553
1.1.2) RT-2036: MUOS Antenna (ECP6486) - Organic		- / -	- / -	- / -	- / -	- / -	- / -	26 / 0.941	36 / 1.325	82 / 3.070	82 / 3.122	345 / 13.361	571 / 21.819
Subtotal: Recurring		- / 0.000	- / -	- / -	- / 0.177	- / -	- / 0.177	- / 3.287	- / 4.628	- / 10.721	- / 10.903	- / 46.656	- / 76.372
Non-Recurring													
1.2.1) Installation Kits N/R - Organic ⁽⁶⁾		- / -	- / 8.419	- / 7.397	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.816
Subtotal: Non-Recurring		- / 0.000	- / 8.419	- / 7.397	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 15.816
B Kits													
Recurring													
2.1.1) Amplifiers (HPA/LNA) (ECP6486) - Organic		- / -	13 / 0.985	58 / 4.469	48 / 3.761	- / -	48 / 3.761	1 / 0.080	37 / 2.999	83 / 6.841	71 / 5.952	260 / 22.165	571 / 47.252
2.1.2) H16 SCS - Organic		- / 3.258	- / -	- / 0.983	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.241
2.1.3) H18 SCS - Organic		- / -	- / -	- / 7.037	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.037
2.1.4) Archive Costs - Organic		1,099 / 139.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,099 / 139.680
Subtotal: Recurring		- / 142.938	- / 0.985	- / 12.489	- / 3.761	- / -	- / 3.761	- / 0.080	- / 2.999	- / 6.841	- / 5.952	- / 22.165	- / 198.210
Non-Recurring													
2.2.1) Install Equipment N/R - Organic		- / 15.890	- / 0.078	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.968
Subtotal: Non-Recurring		- / 15.890	- / 0.078	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 15.968
Subtotal: Digital Communications System (DCS) (OSIP 10-99)		1,099 / 158.828	13 / 9.482	58 / 19.886	50 / 3.938	- / -	50 / 3.938	53 / 3.367	109 / 7.627	247 / 17.562	235 / 16.855	950 / 68.821	2,814 / 306.366
Subtotal: Procurement, All Modification Items		- / 158.828	- / 9.482	- / 19.886	- / 3.938	- / -	- / 3.938	- / 3.367	- / 7.627	- / 17.562	- / 16.855	- / 68.821	- / 306.366
Support (All Modification Items)													
3.1) Engineering Change Orders		- / 0.483	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.483
3.2) Data		- / 0.503	- / 0.137	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.015	- / -	- / -	- / 0.655
3.3) Training Equipment		- / 1.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.165
3.4) Support Equipment		- / 1.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.013
3.5) ILS		- / 4.569	- / -	- / 0.774	- / 0.596	- / -	- / 0.596	- / -	- / -	- / 0.842	- / -	- / -	- / 6.781
3.6) Other Support		- / 12.442	- / 8.521	- / 8.591	- / 8.737	- / -	- / 8.737	- / 8.825	- / 8.975	- / 9.128	- / 9.245	- / 47.178	- / 121.642

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 2 / Digital Communications System (DCS) (OSIP 10-99)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 and EA-18G			Modification Type: CAPABILITY IMPROVEMENT					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Subtotal: Support	- / 20.175	- / 8.658	- / 9.365	- / 9.333	- / -	- / 9.333	- / 8.825	- / 8.975	- / 9.985	- / 9.245	- / 47.178	- / 131.739	
Installation													
Modification Item 1 of 1: Digital Communications System (DCS) (OSIP 10-99)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.238	- / 1.547	- / 2.541	- / 5.972	- / 61.083	- / 71.381	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.238	- / 1.547	- / 2.541	- / 5.972	- / 61.083	- / 71.381	
Total													
Total Cost (Procurement + Support + Installation)	179.003	18.140	29.251	13.271	0.000	13.271	12.430	18.149	30.088	32.072	177.082	509.486	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 2 / Digital Communications System (DCS) (OSIP 10-99)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: Digital Communications System (DCS) (OSIP 10-99)																																							
Manufacturer Information																																							
Manufacturer Name: Boeing - ECP6486															Manufacturer Location: TBD																								
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 18																								
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024													
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024													
Delivery Dates										Jul 2021				Jul 2022				Jul 2023				Jul 2024				Jul 2025													
Installation Information																																							
Method of Implementation: Method:: Installation Name: ECP6486 Installation																																							
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.238		- / -		- / -		- / -		0 / 0.000		2 / 0.238													
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		13 / 1.547		13 / 1.573		- / -		0 / 0.000		26 / 3.120													
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.968		28 / 3.388		0 / 0.000		36 / 4.356													
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 2.584		61 / 7.635		82 / 10.219													
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		82 / 10.264		82 / 10.264													
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		345 / 43.184		345 / 43.184													
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.238		13 / 1.547		21 / 2.541		49 / 5.972		488 / 61.083		573 / 71.381													
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	13	13	-	-	8	9	9	10	21	488	573								
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	13	13	-	-	8	9	9	10	21	488	573								
Method of Implementation (Organic): RT-2036: MUOS Antenna (ECP6486)																														Installation Quantity: 571									
Method of Implementation (Organic): Amplifiers (HPA/LNA) (ECP6486) - Not Installed																														Installation Quantity: 571									

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 2 / Digital Communications System (DCS) (OSIP 10-99)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Digital Communications System (DCS) (OSIP 10-99)		
Installation Information		
Method of Implementation (Organic): Archive Costs		Installation Quantity: 1099
 Footnotes: (6) NRE in FY18 is for ECP 6486 SATCOM (CE 1.1.1). NRE in FY19 is for ECP 6486 MUOS Antenna (CE: 1.1.2)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,246.234	74.220	109.958	96.883	0.000	96.883	83.357	89.690	97.193	99.137	717.227	2,613.899
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,246.234	74.220	109.958	96.883	0.000	96.883	83.357	89.690	97.193	99.137	717.227	2,613.899
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,246.234	74.220	109.958	96.883	0.000	96.883	83.357	89.690	97.193	99.137	717.227	2,613.899
(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:

Incorporation of structural enhancements and changes is required to attain F/A-18 service life and maintain sufficient aircraft inventory to meet fleet operational requirements through FY 2030. Structural enhancements and changes include resolution of discrepancies identified as a result of structural test-16 and in-service experience. These Service Life Extension Program (SLEP) enhancements and changes to extend the life from 6,000 hours to 10,000 hours include: modifications to allow the entire airframe to extend flight hours; modifications to ensure structures currently limited to 78% of design life can achieve 100% life; modifications to ensure landing gear, catapult and attachment components can extend total landings. The unacceptable alternative to retrofitting would be the failure to reach full fatigue life for these aircraft and to not correct the structural defects discovered on fatigue test articles. In many cases, the mission capability of the aircraft would be adversely affected in addition to its reduced service life. As a result, aircraft may be prematurely removed from useful service. Center Barrel Replacement Plus (CBR+) is applicable to F/A-18A/B/C/Ds. Engineering Change Proposal (ECP) 904 Part 1 is the basic center barrel kit. ECP 904 Part 2 is required to extend Wing Root Fatigue Life Expended (WRFLE) and is not required for all aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Currently all Lot VI through XVII aircraft have 78% life limits without the structural life management plan modifications to bring them to 100% airframe life. The Fleet Readiness Center North Island developed ECP 904NI (CBR+) which was approved on 27 April 2000. Validation started October 2000 and was completed in August 2001. Verification started August 2001 and was completed June 2002.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D			Modification Type: SAFETY / LIFE EXTENSION				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) CBR ECP 904 Part 1 (Basic) WRFLE SLEP - Night Attack - NonOrganic ⁽⁷⁾ Installation 1 of 8	233 / 203.434	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	233 / 203.434
1.1.2) CBR+ ECP 904 Part 1 (Basic) WRFLE SLEP - Day Attack - NonOrganic ⁽⁸⁾ Installation 1 of 8	117 / 110.975	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	117 / 110.975
1.1.3) CBR+ ECP 904 Part 2 - Organic ^{(*) (9)}	168 / 72.675	8 / 0.506	8 / 0.515	8 / 0.525	- / -	8 / 0.525	8 / 0.498	8 / 0.490	- / -	- / -	- / -	208 / 75.209
1.1.4) ECP 1099 AFC-579 NLG Retract Actuator Supports - NonOrganic Installation 2 of 8	6 / 0.109	2 / 0.037	2 / 0.038	1 / 0.019	- / -	1 / 0.019	1 / 0.020	1 / 0.020	1 / 0.020	1 / 0.020	- / -	15 / 0.283
1.1.5) ECP-0627 AFC-648 BULKHEAD ASSY-FWD FUS, ACFT, Y357.500 - NonOrganic Installation 3 of 8	2 / 0.162	10 / 0.814	10 / 0.842	10 / 0.857	- / -	10 / 0.857	10 / 0.873	10 / 0.880	10 / 0.889	10 / 0.905	78 / 5.255	150 / 11.477
1.1.6) ECP-0627 AFC-FFLEX02, ACFT - FWDFUS, Y233.7 - Y286.5, Z90.15 - NonOrganic Installation 3 of 8	2 / 0.027	20 / 0.273	10 / 0.139	10 / 0.141	- / -	10 / 0.141	10 / 0.144	20 / 0.293	20 / 0.293	20 / 0.298	38 / 0.688	150 / 2.296
1.1.7) ECP-0627 AFC-FFLEX03, ACFT-FWDFUS, Y233.7-Y279.0 - NonOrganic Installation 3 of 8	2 / 0.054	20 / 0.545	10 / 0.278	10 / 0.283	- / -	10 / 0.283	10 / 0.288	20 / 0.586	20 / 0.586	20 / 0.597	38 / 1.143	150 / 4.360
1.1.8) ECP-0629 AFC-651 FCF 700 Upper Skin - NonOrganic Installation 4 of 8	2 / 0.045	2 / 0.046	2 / 0.046	2 / 0.047	- / -	2 / 0.047	2 / 0.048	2 / 0.049	2 / 0.050	2 / 0.051	4 / 0.249	20 / 0.631
1.1.9) ECP-0630 AFC-652 AFC Upper Crease Longerons Straps - NonOrganic Installation 5 of 8	- / -	- / -	10 / 0.510	10 / 0.520	- / -	10 / 0.520	10 / 0.530	10 / 0.540	10 / 0.550	10 / 0.560	210 / 9.890	270 / 13.100
1.1.10) ECP-0630 AFC-ACF01 ADAPTER - MISSILE LAUNCHER, Y488 - Y497 - NonOrganic Installation 5 of 8	2 / 0.164	- / -	10 / 0.851	10 / 0.867	- / -	10 / 0.867	10 / 0.880	10 / 0.890	10 / 0.900	10 / 0.916	68 / 6.182	130 / 11.650
1.1.11) ECP-0630 AFC-ACF02 FORMER-UPPER SEGMENT Y518.000 - NonOrganic Installation 5 of 8	2 / 0.291	- / -	10 / 1.450	10 / 1.500	- / -	10 / 1.500	10 / 1.550	10 / 1.590	10 / 1.620	10 / 1.649	83 / 12.607	145 / 22.257
1.1.12) ECP-0630 AFC-ACF03 FORMER, FUSELAGE UPPER,CENTER SECTION Y534.000 - NonOrganic Installation 5 of 8	- / -	- / -	2 / 0.735	2 / 0.748	- / -	2 / 0.748	5 / 1.905	5 / 1.940	5 / 1.940	5 / 1.975	126 / 25.961	150 / 35.204
1.1.13) ECP-0630 AFC-ACF04 SUPPORT, FLOOR-FUEL BAY, Y478.500 - NonOrganic Installation 5 of 8	- / -	- / -	2 / 0.059	20 / 0.600	- / -	20 / 0.600	10 / 0.305	23 / 0.715	23 / 0.715	23 / 0.728	49 / 1.576	150 / 4.698
1.1.14) ECP-0631 AYC-1725 IW MULTIPLE LOCATIONS L&R - NonOrganic	2 / 1.054	- / -	10 / 1.563	10 / 1.591	- / -	10 / 1.591	10 / 1.620	10 / 1.649	10 / 1.649	10 / 1.679	228 / 22.121	290 / 32.926

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D			Modification Type: SAFETY / LIFE EXTENSION					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 6 of 8													
1.1.15) ECP-0631 AYC-IW02 SPAR-REAR, WING PANEL INNER - NonOrganic Installation 6 of 8	- / -	- / -	2 / 0.224	10 / 1.142	- / -	10 / 1.142	10 / 1.162	10 / 1.183	10 / 1.183	10 / 1.204	238 / 19.050	290 / 25.148	
1.1.16) ECP-0631 AYC-IW03 SPAR, WING PANEL INNER-NO.4 - NonOrganic Installation 6 of 8	- / -	- / -	- / -	2 / 0.748	- / -	2 / 0.748	2 / 0.761	5 / 1.940	5 / 1.940	5 / 1.975	276 / 45.393	295 / 52.757	
1.1.17) ECP-0631 AYC-IW04 SPAR ASSY-WING - NonOrganic Installation 6 of 8	- / -	- / -	- / -	2 / 0.060	- / -	2 / 0.060	10 / 0.305	10 / 0.306	10 / 0.311	10 / 0.317	238 / 3.403	280 / 4.702	
1.1.18) ECP-0632 AYC-1724 OW SPAR, OUTER-INTMD, NO 3 L&R - NonOrganic Installation 7 of 8	- / -	- / -	- / -	2 / 0.257	- / -	2 / 0.257	10 / 1.309	10 / 1.332	10 / 1.332	10 / 1.356	248 / 22.682	290 / 28.268	
1.1.19) ECP-0632 AYC-1745 OW02 Multi Locations; Intermediate 1, 2, Rear Spars - NonOrganic Installation 7 of 8	- / -	- / -	- / -	2 / 0.280	- / -	2 / 0.280	10 / 1.425	10 / 1.451	10 / 1.451	10 / 1.477	248 / 3.448	290 / 9.532	
1.1.20) ECP-0632 AYC-OW03 SPAR ASSY-WING, OUTER 68 % - NonOrganic Installation 7 of 8	- / -	- / -	- / -	2 / 0.130	- / -	2 / 0.130	10 / 0.674	10 / 0.686	10 / 0.686	10 / 0.699	248 / 4.226	290 / 7.101	
1.1.21) ECP-0632 AYC-OW04 RIB, WING, OUTER-CANTED XW179.700 - NonOrganic Installation 7 of 8	- / -	- / -	- / -	2 / 0.184	- / -	2 / 0.184	10 / 0.953	10 / 0.971	10 / 0.970	10 / 0.988	248 / 7.872	290 / 11.938	
1.1.22) ECP-0633 AFC-650 AF Door 68 Doubler L&R - NonOrganic Installation 8 of 8	2 / 0.046	- / -	10 / 0.240	10 / 0.244	- / -	10 / 0.244	10 / 0.249	10 / 0.253	10 / 0.258	10 / 0.262	228 / 3.498	290 / 5.050	
1.1.23) ECP-0633 AFC-668 AF AFT Lower Longerons; Above Door 68 L&R - NonOrganic Installation 8 of 8	2 / 0.196	- / -	10 / 1.030	10 / 1.050	- / -	10 / 1.050	10 / 1.070	10 / 1.090	10 / 1.110	10 / 1.132	228 / 19.936	290 / 26.614	
1.1.24) ECP-0633 AFC-AF03 LONGERON-FUS, UPR OUTBD, Y558.821 TO Y657.350 - NonOrganic Installation 8 of 8	- / -	2 / 0.019	20 / 0.198	10 / 0.101	- / -	10 / 0.101	10 / 0.103	10 / 0.105	10 / 0.105	10 / 0.106	68 / 0.862	140 / 1.599	
1.1.25) ECP-0633 AFC-AF04 FORMER TI-FUS AFT SECT, OUTBD, Y598.00 - NonOrganic Installation 8 of 8	- / -	- / -	20 / 0.476	10 / 0.242	- / -	10 / 0.242	10 / 0.246	10 / 0.251	10 / 0.251	10 / 0.255	70 / 2.121	140 / 3.842	
1.1.26) ECP-0633 AFC-AF05 FORMER-FUS AFT SECT, INBD, Y598.000 - NonOrganic Installation 8 of 8	- / -	- / -	2 / 0.198	20 / 2.020	- / -	20 / 2.020	10 / 1.028	10 / 1.046	10 / 1.046	10 / 0.107	88 / 11.947	150 / 17.392	
1.1.27) ECP-0633 AFC-AF06 FORMER-FUS AFT SECT, INBD, Y623.000 - NonOrganic Installation 8 of 8	- / -	- / -	2 / 0.032	20 / 0.323	- / -	20 / 0.323	10 / 0.164	10 / 0.167	10 / 0.167	10 / 0.170	88 / 1.790	150 / 2.813	
1.1.28) ECP-0633 AFC-AF07 FORMER-AFT FUS SECT, INBD, Y633.250 - NonOrganic	- / -	- / -	2 / 0.048	20 / 0.485	- / -	20 / 0.485	10 / 0.247	10 / 0.251	10 / 0.251	10 / 0.256	88 / 2.624	150 / 4.162	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D				Modification Type: SAFETY / LIFE EXTENSION				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 8 of 8													
1.1.29) ECP-0633 AFC-AF08 PLATE, T-LONGERON, Y607.000, Y615.000 - NonOrganic Installation 8 of 8	- / -	- / -	2 / 0.048	20 / 0.485	- / -	20 / 0.485	10 / 0.247	10 / 0.251	10 / 0.251	10 / 0.256	88 / 2.684	150 / 4.222	
1.1.30) A-Kits Archived - Organic ^(*)	- / 5.669	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.669	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 200.885	- / 18.324	- / 37.592	- / 25.062	- / -	- / 25.062	- / 10.164	- / 15.770	- / 18.536	- / 20.121	- / 74.741	- / 421.195	
2.1.1) Fuel Cell Refurb & RIM (RIM start FY08) - Organic ^(*) (10)	266 / 34.760	17 / 3.400	20 / 5.000	8 / 1.600	- / -	8 / 1.600	8 / 1.600	6 / 1.200	8 / 1.600	8 / 1.629	9 / 1.771	350 / 52.560	
2.1.2) Nacelle RIM (271 & 316C1) - Organic ^(*) (11)	48 / 4.865	17 / 1.105	20 / 2.300	8 / 0.520	- / -	8 / 0.520	8 / 0.520	6 / 0.390	8 / 0.520	8 / 0.529	9 / 0.576	132 / 11.325	
2.2.1) Install Equipment N/R - Organic ^(*)	- / 15.083	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.083	
Subtotal: Procurement	- / 650.494	- / 25.069	- / 54.412	- / 42.631	- / -	- / 42.631	- / 30.888	- / 38.285	- / 41.180	- / 42.217	- / 314.296	- / 1,239.472	
Support													
3.2) Data	- / 19.105	- / 0.070	- / 1.083	- / 0.097	- / -	- / 0.097	- / 0.115	- / 0.136	- / 0.160	- / 0.189	- / -	- / 20.955	
3.4) Support Equipment	- / 3.779	- / 0.206	- / 4.819	- / 1.134	- / -	- / 1.134	- / 0.846	- / 0.218	- / 0.218	- / 0.222	- / 0.625	- / 12.067	
3.5) Inventory Modeling	- / 14.456	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.456	
3.6) ILS	- / 88.092	- / 6.107	- / 6.229	- / 6.354	- / -	- / 6.354	- / 6.481	- / 6.610	- / 6.743	- / 6.877	- / 17.204	- / 150.697	
3.7) Other Support	- / 115.864	- / 10.724	- / 14.917	- / 15.215	- / -	- / 15.215	- / 15.520	- / 15.830	- / 16.147	- / 16.470	- / 44.715	- / 265.402	
Subtotal: Support	- / 241.296	- / 17.107	- / 27.048	- / 22.800	- / -	- / 22.800	- / 22.962	- / 22.794	- / 23.268	- / 23.758	- / 62.544	- / 463.577	
Installation													
Installation 1 of 8: GRP: CBR ECP 904	- / 353.611	- / 31.489	- / 26.024	- / 20.989	- / 0.000	- / 20.989	- / 12.724	- / 9.950	- / 11.977	- / 12.192	- / 61.425	- / 540.381	
Installation 2 of 8: ECP 1099 AFC-579 NLG Retract Actuator Supports	- / 0.443	- / 0.259	- / 0.264	- / 0.268	- / 0.000	- / 0.268	- / 0.137	- / 0.139	- / 0.139	- / 0.139	- / 0.142	- / 1.930	
Installation 3 of 8: GRP: ECP-0627 FWD Fuselage & LEX	- / -	- / 0.248	- / 1.677	- / 1.282	- / 0.000	- / 1.282	- / 1.305	- / 1.329	- / 1.787	- / 1.609	- / 11.980	- / 21.217	
Installation 4 of 8: GRP: ECP-0629 FWD Center Fuselage	- / -	- / 0.048	- / 0.049	- / 0.050	- / 0.000	- / 0.050	- / 0.051	- / 0.052	- / 0.052	- / 0.053	- / 0.209	- / 0.564	
Installation 5 of 8: GRP: ECP-0630 AFT Center Fuselage	- / -	- / -	- / 0.464	- / 3.697	- / 0.000	- / 3.697	- / 4.336	- / 5.271	- / 5.736	- / 5.839	- / 79.996	- / 105.339	
Installation 6 of 8: GRP: ECP-0631 Inner Wing	- / 0.138	- / -	- / -	- / 1.039	- / 0.000	- / 1.039	- / 3.157	- / 3.464	- / 4.628	- / 4.710	- / 96.339	- / 113.475	
Installation 7 of 8: GRP: ECP-0632 Outer Wing	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.901	- / 3.114	- / 3.114	- / 3.170	- / 38.521	- / 48.820	
Installation 8 of 8: GRP: ECP-0633 AFT Fuselage	- / 0.252	- / -	- / 0.020	- / 4.127	- / 0.000	- / 4.127	- / 6.896	- / 5.292	- / 5.312	- / 5.450	- / 51.775	- / 79.124	
Subtotal: Installation	- / 354.444	- / 32.044	- / 28.498	- / 31.452	- / -	- / 31.452	- / 29.507	- / 28.611	- / 32.745	- / 33.162	- / 340.387	- / 910.850	

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 A/B/C/D			Modification Type: SAFETY / LIFE EXTENSION				Related RDT&E PEs:						
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	1,246.234	74.220	109.958	96.883	0.000	96.883	83.357	89.690	97.193	99.137	717.227	2,613.899	

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Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 8: GRP: CBR ECP 904																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman - CBR ECP 904															Manufacturer Location: El Segundo, CA																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 29																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: CBR ECP 904																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		264 / 353.611		17 / 31.489		14 / 26.024		11 / 20.989		0 / 0.000		11 / 20.989		6 / 12.724		5 / 9.950		6 / 11.977		6 / 12.192		21 / 61.425		350 / 540.381							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		264 / 353.611		17 / 31.489		14 / 26.024		11 / 20.989		0 / 0.000		11 / 20.989		6 / 12.724		5 / 9.950		6 / 11.977		6 / 12.192		21 / 61.425		350 / 540.381							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	264	8	8	1	-	7	7	-	-	3	3	3	2	3	3	-	-	3	2	-	-	3	3	-	-	3	3	-	-		
Out	264	1	-	8	8	-	-	7	7	3	3	3	2	-	-	3	3	-	-	3	2	-	-	3	3	-	-	3	3		

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Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 8: ECP 1099 AFC-579 NLG Retract Actuator Supports																															
Manufacturer Information																															
Manufacturer Name: North Island - ECP 1099 NLG Retract Actuator Supports															Manufacturer Location: San Diego, CA																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023					
Delivery Dates		Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023				Nov 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP 1099 AFC-579 NLG Retract Actuator Supports																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.443		2 / 0.259		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.702							
FY 2018		- / -		- / -		2 / 0.264		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.264							
FY 2019		- / -		- / -		- / -		2 / 0.268		0 / 0.000		2 / 0.268		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.268							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.137		- / -		- / -		- / -		0 / 0.000		1 / 0.137							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.139		- / -		- / -		0 / 0.000		1 / 0.139							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.139		- / -		0 / 0.000		1 / 0.139							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.139		0 / 0.000		1 / 0.139							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.142		1 / 0.142							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		4 / 0.443		2 / 0.259		2 / 0.264		2 / 0.268		0 / 0.000		2 / 0.268		1 / 0.137		1 / 0.139		1 / 0.139		1 / 0.139		1 / 0.142		15 / 1.930							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	1	-	-	1	1	-	-	1	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	15
Out	4	1	1	-	-	1	1	-	-	1	1	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	1	15

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 8: GRP: ECP-0627 FWD Fuselage & LEX																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-0627 FWD Fuselage & LEX															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0627 FWD Fuselage & LEX																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.248		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.248					
FY 2018		- / -		- / -		50 / 1.677		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		50 / 1.677					
FY 2019		- / -		- / -		- / -		30 / 1.282		0 / 0.000		30 / 1.282		- / -		- / -		- / -		- / -		- / -		0 / 0.000		30 / 1.282					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		30 / 1.305		- / -		- / -		- / -		- / -		0 / 0.000		30 / 1.305					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 1.329		- / -		- / -		- / -		0 / 0.000		30 / 1.329					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.787		- / -		- / -		0 / 0.000		50 / 1.787					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.609		0 / 0.000		50 / 1.609					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.814		50 / 1.814					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		154 / 10.166		154 / 10.166					
Total		- / -		6 / 0.248		50 / 1.677		30 / 1.282		0 / 0.000		30 / 1.282		30 / 1.305		30 / 1.329		50 / 1.787		50 / 1.609		204 / 11.980		450 / 21.217							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	15	15	10	10	9	11	6	4	9	11	6	4	9	11	6	4	14	16	11	9	15	15	10	10	204	450
Out	-	4	-	2	-	10	10	15	15	4	6	11	9	4	6	11	9	4	6	11	9	9	11	16	14	10	10	15	15	204	450

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 8: GRP: ECP-0629 FWD Center Fuselage																															
Manufacturer Information																															
Manufacturer Name: Boeing -ECP-0629 FWD Center Fuselage															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0629 FWD Center Fuselage																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.048		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.048							
FY 2018		- / -		- / -		2 / 0.049		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.049							
FY 2019		- / -		- / -		- / -		2 / 0.050		0 / 0.000		2 / 0.050		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.050							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.051		- / -		- / -		- / -		0 / 0.000		2 / 0.051							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.052		- / -		- / -		0 / 0.000		2 / 0.052							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.052		- / -		0 / 0.000		2 / 0.052							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.053		0 / 0.000		2 / 0.053					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.053		2 / 0.053					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.156		4 / 0.156					
Total		- / -		2 / 0.048		2 / 0.049		2 / 0.050		0 / 0.000		2 / 0.050		2 / 0.051		2 / 0.052		2 / 0.052		2 / 0.053		6 / 0.209		20 / 0.564							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	1	1	-	-	1	1	-	-	6	20
Out	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	6	20

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 8: GRP: ECP-0630 AFT Center Fuselage																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-0630 AFT Center Fuselage															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates						Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0630 AFT Center Fuselage																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)							
Prior Years		- / -		- / -		4 / 0.464		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.464					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		34 / 3.697		0 / 0.000		34 / 3.697		- / -		- / -		- / -		- / -		- / -		0 / 0.000		34 / 3.697					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		52 / 4.336		- / -		- / -		- / -		- / -		0 / 0.000		52 / 4.336					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		45 / 5.271		- / -		- / -		- / -		0 / 0.000		45 / 5.271					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		58 / 5.736		- / -		- / -		0 / 0.000		58 / 5.736					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		58 / 5.839		0 / 0.000		58 / 5.839					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		58 / 5.893		58 / 5.893					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		536 / 74.103		536 / 74.103					
Total		- / -		- / -		4 / 0.464		34 / 3.697		0 / 0.000		34 / 3.697		52 / 4.336		45 / 5.271		58 / 5.736		58 / 5.839		594 / 79.996		845 / 105.339							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	11	7	9	7	14	13	14	11	14	15	10	6	15	16	15	12	15	16	14	13	594	845
Out	-	-	-	-	-	4	-	-	-	11	7	9	7	14	13	14	11	14	15	10	6	15	16	15	12	15	16	14	13	594	845

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 8: GRP: ECP-0631 Inner Wing																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-0631 Inner Wing															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates						Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0631 Inner Wing																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		2 / 0.138		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.138					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		12 / 1.039		0 / 0.000		12 / 1.039		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 1.039					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		24 / 3.157		- / -		- / -		- / -		- / -		0 / 0.000		24 / 3.157					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 3.464		- / -		- / -		- / -		0 / 0.000		32 / 3.464					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 4.628		- / -		- / -		0 / 0.000		35 / 4.628					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 4.710		0 / 0.000		35 / 4.710					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 4.710		35 / 4.710					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		980 / 91.629		980 / 91.629					
Total		2 / 0.138		- / -		- / -		12 / 1.039		0 / 0.000		12 / 1.039		24 / 3.157		32 / 3.464		35 / 4.628		35 / 4.710		1,015 / 96.339		1,155 / 113.475							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	6	6	-	-	12	12	-	-	16	16	-	-	17	17	1	-	17	17	1	-	1,015	1,155
Out	2	-	-	-	-	-	-	-	-	6	6	-	-	12	12	-	-	16	16	-	-	17	17	1	-	17	17	1	-	1,015	1,155

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 8: GRP: ECP-0632 Outer Wing																															
Manufacturer Information																															
Manufacturer Name: Boeing -ECP-0632 Outer Wing															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0632 Outer Wing																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.901		- / -		- / -		- / -		0 / 0.000		8 / 0.901					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 3.114		- / -		- / -		0 / 0.000		40 / 3.114					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 3.114		- / -		0 / 0.000		40 / 3.114					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 3.170		0 / 0.000		40 / 3.170					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 3.170		40 / 3.170					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		992 / 35.351		992 / 35.351					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.901		40 / 3.114		40 / 3.114		40 / 3.170		1,032 / 38.521		1,160 / 48.820					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	-	-	20	20	-	-	20	20	-	-	20	20	-	-	1,032	1,160
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	-	-	20	20	-	-	20	20	-	-	20	20	-	-	1,032	1,160

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 8: GRP: ECP-0633 AFT Fuselage																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-0633 AFT Fuselage															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-0633 AFT Fuselage																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.252		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.252							
FY 2018		- / -		- / -		2 / 0.020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.020							
FY 2019		- / -		- / -		- / -		68 / 4.127		0 / 0.000		68 / 4.127		- / -		- / -		- / -		- / -		0 / 0.000		68 / 4.127							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		120 / 6.896		- / -		- / -		- / -		0 / 0.000		120 / 6.896							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		80 / 5.292		- / -		- / -		0 / 0.000		80 / 5.292							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		80 / 5.312		- / -		0 / 0.000		80 / 5.312							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		80 / 5.450		0 / 0.000		80 / 5.450							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		80 / 5.450		80 / 5.450							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		946 / 46.325		946 / 46.325							
Total		4 / 0.252		- / -		2 / 0.020		68 / 4.127		0 / 0.000		68 / 4.127		120 / 6.896		80 / 5.292		80 / 5.312		80 / 5.450		1,026 / 51.775		1,460 / 79.124							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	22	16	16	14	34	36	26	24	34	36	6	4	34	36	6	4	37	38	3	2	1,026	1,460
Out	4	-	-	-	-	2	-	-	-	22	16	16	14	34	36	26	24	34	36	6	4	34	36	6	4	37	38	3	2	1,026	1,460
Footnotes:																															
⁽⁷⁾ Prior year procurements were planned based on ability to install 40 kits per year. Actual capacity to install is only up to 26 kits per year.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 3 / F/A-18 Aircraft Structural Life Management Plan (SLMP) (OSIP 11-99) CBR+
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(8) A) Kit installs are delayed due to procurement of Canadian and Australian kits. In addition, prior year procurements were planned based on ability to install 40 kits per year. Actual capacity to install is only up to 26 kits per year. B) Due to production line shut down, 23 kits were procured in FY13 as a life of type buy. (9) Kit pricing is quantity sensitive. Foreign military sales procurements in some years affect unit price. (10) Funding for RIM is budgeted based on known repair requirements that will occur each time an F/A-18 is opened to install the CBR+ structural components. These issues are inherent and expected during a modification of this scope where areas of the aircraft are being disassembled that were never intended to be disassembled when originally manufactured. (11) Funding for RIM is budgeted based on known repair requirements that will occur each time an F/A-18 is opened to install the CBR+ structural components. These issues are inherent and expected during a modification of this scope where areas of the aircraft are being disassembled that were never intended to be disassembled when originally manufactured.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	939.743	26.953	9.485	9.085	0.000	9.085	7.242	6.072	17.292	31.001	63.523	1,110.396
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	939.743	26.953	9.485	9.085	0.000	9.085	7.242	6.072	17.292	31.001	63.523	1,110.396
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	939.743	26.953	9.485	9.085	0.000	9.085	7.242	6.072	17.292	31.001	63.523	1,110.396
<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: This Operational, Safety and Improvement Program (OSIP) funds systems that provide secure digital data link communications and Tactical Air Navigation (TACAN) capabilities to aircraft. The Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) is an Engineering Change Proposal (ECP) upgrade to the MIDS-LVT (Low Volume Terminal) and offers the same functionality as MIDS-LVT (Link 16, tactical air navigation, and digital voice) in a software-controlled architecture, JTRS-compliant format, and provides the option of future expandability to host follow-on advanced tactical data links (i.e. Tactical Targeting Network Technology (TTNT). MIDS JTRS is approved for retrofit in Lots 26-31 F/A-18E/F and EA-18G aircraft and is funded for retrofit incorporation as MIDS JTRS 4-Net Concurrent Multi-Netting and Concurrent Contention Receive (CMN-4) in all MIDS-capable Navy F/A-18 and EA-18G aircraft. MIDS JTRS provides cryptographic modernization and frequency remapping capability. CMN-4 provides increased Link 16 capacity to support Navy Integrated Fire Control-Counter Air. With either MIDS-LVT or MIDS JTRS installed, F/A-18 is interoperable with all Link 16 equipped platforms in United States and Allied Nations. Retrofit incorporation of MIDS JTRS TTNT is planned for all EA-18G aircraft (Lot 30 and up) as part of Integrated Capability Package-3 (ICP-3) and for all Lot 26 and up F/A-18E/F aircraft. TTNT provides Internet Protocol (IP) and non-IP network connectivity at significantly increased throughput capacity compared to that of Link 16. This OSIP will also be used to perform efforts to address parts obsolescence and tactical modernization (MIDS Modernization Increments). Single MIDS Operational Requirements Document # 642-61-04 and MIDS JTRS Capability Production Document Change 1 Version 2.0 are germane. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This OSIP was originally planned for incorporation of MIDS into F/A-18C/D (Lots 12-21) and F/A-18E/F (Lots 22-31), but is now applicable to all F/A-18A++/C/D/E/F and EA-18G aircraft. MIDS JTRS completed its VCD in March 2012. Full rate production approval for MIDS-LVT was granted on 25 September 2003 and for MIDS JTRS on 4 April 2012.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 and EA-18G			Modification Type: CAPABILITY IMPROVEMENT				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) A-Kits Archive - Organic ^(*)	- / 262.817	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 262.817
1.1.2) MIDS JTRS cable sets - Organic ^(*)	276 / 1.184	600 / 1.516	220 / 0.551	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,096 / 3.251
1.1.3) ECP 6445 A-kit - Organic ^(*)	- / -	1,312 / 5.659	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,312 / 5.659
1.1.4) TTNT A-Kit - Organic ^(*) (12)	- / -	27 / 0.000	78 / 0.000	82 / 0.000	- / -	82 / 0.000	82 / 0.000	82 / 0.000	71 / 0.000	50 / 0.000	99 / 0.000	571 / 0.000
1.2.1) Installation Kits N/R - Organic ^(*)	- / 0.194	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.194
2.1.1) H18 SCS - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.743	- / -	- / -	- / 0.743
2.1.2) MIDS Software - Organic ^(*)	- / -	- / 8.048	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.048
2.1.3) ECP 577R3 - NonOrganic ⁽¹³⁾ Installation 1 of 1	72 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 0.000
2.1.4) E/F/G MIDS JTRS TTNT Terminals (ECP6471) - Organic ^(*) (14)	28 / 21.313	15 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 21.313
2.1.5) E/F/G CMN-4 Upgrades (TTNT) (ECP6471) - Organic ^(*) (15)	- / -	- / -	53 / 0.000	107 / 0.000	- / -	107 / 0.000	82 / 0.000	82 / 0.000	22 / 10.374	50 / 23.978	148 / 48.284	544 / 82.636
2.1.6) B-Kits Archive - Organic ^(*)	908 / 511.471	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	908 / 511.471
2.2.1) Install Equipment N/R - Organic ^(*)	- / 53.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 53.806
Subtotal: Procurement	- / 850.785	- / 15.223	- / 0.551	- / -	- / -	- / -	- / -	- / -	- / 11.117	- / 23.978	- / 48.284	- / 949.938
Support												
3.1) Engineering Change Orders	- / 0.980	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.980
3.2) Data	- / 2.906	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.906
3.4) Support Equipment	- / 7.902	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.743	- / 0.380	- / 9.025
3.5) ILS	- / 15.073	- / 0.404	- / 0.365	- / 0.371	- / -	- / 0.371	- / 0.356	- / 0.362	- / 0.368	- / 0.374	- / 3.170	- / 20.843
3.6) Other Support	- / 62.039	- / 11.314	- / 8.548	- / 8.693	- / -	- / 8.693	- / 8.864	- / 5.710	- / 5.807	- / 5.906	- / 11.689	- / 126.570
Subtotal: Support	- / 88.900	- / 11.718	- / 8.913	- / 9.064	- / -	- / 9.064	- / 7.220	- / 6.072	- / 6.175	- / 7.023	- / 15.239	- / 160.324
Installation												
Installation 1 of 1: ECP 577R3	- / 0.058	- / 0.012	- / 0.021	- / 0.021	- / 0.000	- / 0.021	- / 0.022	- / -	- / -	- / -	- / 0.000	- / 0.134
Subtotal: Installation	- / 0.058	- / 0.012	- / 0.021	- / 0.021	- / -	- / 0.021	- / 0.022	- / -	- / -	- / -	- / 0.000	- / 0.134
Total												
Total Cost (Procurement + Support + Installation)	939.743	26.953	9.485	9.085	0.000	9.085	7.242	6.072	17.292	31.001	63.523	1,110.396

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: ECP 577R3																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 5773R3															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP 577R3																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		32 / 0.058		10 / 0.012		10 / 0.021		10 / 0.021		0 / 0.000		10 / 0.021		10 / 0.022		- / -		- / -		- / -		0 / 0.000		72 / 0.134							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		32 / 0.058		10 / 0.012		10 / 0.021		10 / 0.021		0 / 0.000		10 / 0.021		10 / 0.022		- / -		- / -		- / -		0 / 0.000		72 / 0.134							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	32	2	2	3	3	2	2	3	3	2	2	3	3	2	2	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	32	2	2	3	3	2	2	3	3	2	2	3	3	2	2	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Footnotes: ⁽¹²⁾ Kits are procured with Spectrum Relocation Funds (SRF) received for TTNT ⁽¹³⁾ Quantity of 72 kits were procured in prior years and are installed based on aircraft availability.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 4 / Multi-Functional Information Distribution System (MIDS) (OSIP 12-99)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(14) Kit upgrades in FY18 were procured with Spectrum Relocation Funds (SRF). (15) Kit upgrades in FY19 - FY22 are planned to be procured with Spectrum Relocation Funds (SRF) to be received for TTNT.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 5 / USMC F/A-18 Upgrade ECP-583 (OSIP 21-00)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	444.859	3.227	0.000	43.993	0.000	43.993	39.993	67.337	1.051	34.103	100.100	734.663
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	444.859	3.227	0.000	43.993	0.000	43.993	39.993	67.337	1.051	34.103	100.100	734.663
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	444.859	3.227	0.000	43.993	0.000	43.993	39.993	67.337	1.051	34.103	100.100	734.663
<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: This Operational Safety Improvement Program (OSIP) upgrades United States Marine Corps (USMC) F/A-18A/B/C/Ds avionics including both hardware and software capabilities. This requirement is critical to meet the Marine Corps requirements for the Tactical Aircraft Integration Plan. The avionics upgrade includes avionics subsystems already incorporated or being incorporated into USMC F/A-18 aircraft. ECP 1153 incorporates the Navy Aircrew Common Ejection Seat (NACES) for utilization with the Joint Helmet Mounted Cueing System (JHMCS) system on C+ aircraft. ECP 1153 adds the following capabilities to C+ aircraft: MIDS LVT; color displays; JHMCS; ALE-47; Tactical Aircraft Moving Map Capability (TAMMAC); and Advanced Memory Unit (AMU). This OSIP will implement hardware and software upgrades required to maintain the relevance of and to extend the operational life of the F/A-18 A-D beyond design life. These upgrades include radars, displays, data transfer units, and mission computers. This OSIP will also implement Automated Ground Collision Avoidance System (Auto-GCAS) as a software upgrade to the mission computer, digital map computer, and the flight control computer. The USMC Active Electronically Scanned Array (AESA) radar effort will upgrade the USMC F/A-18 C/D aircraft with an AESA radar replacement to the APG-73 radar. The AESA radar replacement will improve USMC F/A-18 C/D survivability and supportability. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ECP-1153 (USMC B+/C+ Upgrade) will complete in FY18. Auto-GCAS software upgrades began in FY18. USMC AESA Radar upgrade development began in October 2018 and flight test will begin in Oct 2019 (RDT&E funded). Radar retrofit procurements will begin in October 2020.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 5 / USMC F/A-18 Upgrade ECP-583 (OSIP 21-00)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18 A/B/C/D				Modification Type: AVIONICS UPGRADE				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ECP-1153 A-kits - NonOrganic <i>Installation 1 of 1</i>	29 / 15.868	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 15.868	
1.1.2) ECP 1153 A Kit RIM - Organic ^(*)	15 / 2.701	13 / 0.138	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 2.839	
1.1.3) A-Kits Archive - Organic ^(*)	419 / 70.833	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	419 / 70.833	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 34.836	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.836	
2.1.1) USMC AESA Radars - Organic ^(*)	- / -	- / -	- / -	12 / 32.370	- / -	12 / 32.370	15 / 38.361	26 / 65.673	- / -	13 / 32.034	34 / 91.800	100 / 260.238	
2.1.2) B-Kits Archive - Organic ^(*)	- / 245.776	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 245.776	
2.2.1) Installation Equipment N/R - Organic ^(*) ⁽¹⁶⁾	- / 1.744	- / -	- / -	- / 10.023	- / -	- / 10.023	- / -	- / -	- / -	- / -	- / -	- / 11.767	
Subtotal: Procurement	- / 371.758	- / 0.138	- / -	- / 42.393	- / -	- / 42.393	- / 38.361	- / 65.673	- / -	- / 32.034	- / 91.800	- / 642.157	
Support													
3.2) ECP 634 - USMC HOL Upgrade: Software (H12C SCS)	- / 16.558	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.558	
3.3) Data	- / 3.069	- / -	- / -	- / 0.100	- / -	- / 0.100	- / 0.102	- / 0.104	- / 0.106	- / 0.108	- / 2.300	- / 5.889	
3.4) Training Equipment	- / 0.747	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.747	
3.5) Support Equipment	- / 5.586	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.338	- / -	- / 5.924	
3.6) ILS	- / 3.725	- / 0.357	- / -	- / 0.500	- / -	- / 0.500	- / 0.510	- / 0.520	- / 0.531	- / 0.541	- / 2.500	- / 9.184	
3.7) Other Support	- / 27.404	- / 0.875	- / -	- / 1.000	- / -	- / 1.000	- / 1.020	- / 1.040	- / 0.414	- / 1.082	- / 3.500	- / 36.335	
Subtotal: Support	- / 57.089	- / 1.232	- / -	- / 1.600	- / -	- / 1.600	- / 1.632	- / 1.664	- / 1.051	- / 2.069	- / 8.300	- / 74.637	
Installation													
Installation 1 of 1: ECP-1153 A-kits	- / 16.012	- / 1.857	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 17.869	
Subtotal: Installation	- / 16.012	- / 1.857	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 17.869	
Total													
Total Cost (Procurement + Support + Installation)	444.859	3.227	0.000	43.993	0.000	43.993	39.993	67.337	1.051	34.103	100.100	734.663	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 5 / USMC F/A-18 Upgrade ECP-583 (OSIP 21-00)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: ECP-1153 A-kits																															
Manufacturer Information																															
Manufacturer Name: Various - ECP-1153 A-kits															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 20																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-1153 A-kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		16 / 16.012		13 / 1.857		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		29 / 17.869					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		16 / 16.012		13 / 1.857		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		29 / 17.869					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Out	16	3	3	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29
Footnotes: ⁽¹⁶⁾ NRE funding in FY20 is for USMC AESA Radars.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	306.625	2.029	2.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	311.497
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	306.625	2.029	2.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	311.497
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	306.625	2.029	2.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	311.497
<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 Joint Helmet-Mounted Cueing System (JHMCS) is a multi-service system that provides United States Air Force (USAF), United States Navy (USN), and United States Marine Corps aircraft the capability to cue and verify on-board weapons and weapons sensors to a specific azimuth/elevation determined by the pilot's head position and to confirm sensor line-of-sight. The intent is to reduce tasks required of aircrews, verify seeker/sensor position, and enhance weapons employment opportunities. The JHMCS incorporates an ejection-compatible helmet-mounted display system, with capability to cue and verify cueing of high off-axis sensors and weapons, on USAF and USN single seat and two seat fighter aircraft. JHMCS night vision cueing and display will provide the ability to cue and display weapons and sensors at night through the initial fielding of a narrow field of view night vision device that integrates the JHMCS cueing and display symbology. SJU-17B Navy Aircrew Common Ejection Seat (NACES), cockpit video recording system and tactical aircraft moving map capability digital map computer are required for retrofit installation of JHMCS. This OSIP also provides for the upgrade modification of SJU-17A NACES, and the replacement of SJU-5 ejection seats with retrofit SJU-17B NACES for Lot 12 F/A-18C aircraft. Installation of Aft Seat JHMCS capability for Lot 23-25 F/A-18F will be performed concurrent with the upgrade retrofit installation of the Type 2 Advanced Mission Computer (AMC) and the Solid State Recorder (SSR) in OSIP 23-04. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All developmental milestones have been completed. ECP-570R4 has completed its final aircraft integration milestones. AFC-400 Rev A for Lot 12 F/A-18C completed validation/verification and retrofit installation began in 2015. Retrofit installations for Lot 23-25 F/A-18F began in 2016 and will continue through 2019 concurrent with AMC and SSR (OSIP 23-04).												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 and EA-18G			Modification Type: CAPABILITY IMPROVEMENT					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)													
A Kits													
Recurring													
1.1.1) C/D A-Kit - NonOrganic ⁽¹⁷⁾		362 / 33.633	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	362 / 33.633	
1.1.2) E/F A-Kit - NonOrganic		178 / 16.609	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	178 / 16.609	
1.1.3) A-Kits Archive - Organic		1,141 / 4.924	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,141 / 4.924	
Subtotal: Recurring		- / 55.166	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 55.166	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic		- / 18.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.832	
Subtotal: Non-Recurring		- / 18.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 18.832	
B Kits													
Recurring													
2.1.1) 27C SCS - Organic		- / 0.022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.022	
2.1.2) B-Kits Archive - Organic		3,470 / 112.483	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,470 / 112.483	
Subtotal: Recurring		- / 112.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 112.505	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic		- / 1.281	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.281	
Subtotal: Non-Recurring		- / 1.281	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.281	
Subtotal: Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)		5,151 / 187.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5,151 / 187.784	
Subtotal: Procurement, All Modification Items		- / 187.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 187.784	
Support (All Modification Items)													
3.1) Engineering Change Orders		- / 0.794	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.794	
3.2) Data		- / 6.508	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.508	
3.4) Support Equipment		174 / 19.585	- / -	- / 0.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	174 / 19.761	
3.5) ILS ⁽¹⁸⁾		- / 23.242	- / 0.173	- / 0.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 23.591	
3.6) Other Support ⁽¹⁹⁾		- / 15.927	- / 0.134	- / 0.136	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.197	
Subtotal: Support		- / 66.056	- / 0.307	- / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 66.851	
Installation													

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: F/A-18 and EA-18G			Modification Type: CAPABILITY IMPROVEMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Modification Item 1 of 1: Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)	- / 52.785	- / 1.722	- / 2.355	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 56.862
Subtotal: Installation	- / 52.785	- / 1.722	- / 2.355	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 56.862
Total												
Total Cost (Procurement + Support + Installation)	306.625	2.029	2.843	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	311.497

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)																																							
Manufacturer Information																																							
Manufacturer Name: Boeing															Manufacturer Location: St Louis, MO																								
Administrative Leadtime (<i>in Months</i>): 15															Production Leadtime (<i>in Months</i>): 16																								
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024													
Contract Dates																																							
Delivery Dates																																							
Installation Information																																							
Method of Implementation: Navy Field Mod Team:: Installation Name: JHMCS Installs																																							
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total															
		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		472 / 52.785		37 / 1.722		31 / 2.355		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		540 / 56.862													
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -													
Total		472 / 52.785		37 / 1.722		31 / 2.355		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		540 / 56.862													
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	472	9	9	9	10	9	10	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	540								
Out	472	9	9	9	10	9	10	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	540								
Method of Implementation (Organic): A-Kits Archive - Not Installed																														Installation Quantity: 1141									
Method of Implementation (Organic): B-Kits Archive - Not Installed																														Installation Quantity: 3470									

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 6 / Joint Helmet Mounted Cueing System (JHMCS) (OSIP 24-00)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Footnotes: ⁽¹⁷⁾ Install costs vary due to significant differences in work required by type/model/series and location performed. Labor rates vary depending upon whether work is performed Continental United States (CONUS) or Outside Continental United States (OCONUS). ⁽¹⁸⁾ Due to installs being performed in FY18 and FY19, ILS funding is required. ⁽¹⁹⁾ Due to installs being performed in FY18 and FY19, Other Support funding is required.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	929.718	30.577	2.184	9.763	0.000	9.763	9.670	7.406	47.150	48.095	284.855	1,369.418
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	929.718	30.577	2.184	9.763	0.000	9.763	9.670	7.406	47.150	48.095	284.855	1,369.418
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	929.718	30.577	2.184	9.763	0.000	9.763	9.670	7.406	47.150	48.095	284.855	1,369.418
<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 Advanced Targeting Forward Looking Infrared (ATFLIR) pod (Operational Requirements Document# 700-88-06) provides F/A-18 A+/C/D/E/F and E/A-18G aircraft with the ability to detect, track, and engage air and ground targets, at extended ranges, using the infrared and visible light spectrums. Changes in F/A-18 air-to-air employment and continual improvements to air-to-ground standoff/precision strike weapons necessitate increased pod performance and reliability to support longer required detection/engagement distances. This Operational, Safety and Improvement Program (OSIP) supports efforts which address piece part obsolescence mitigation/avoidance in addition to examining/incorporating potential ATFLIR-related performance upgrades associated with network centric operations, interoperability and evolving electro-optic targeting capability requirements. The ATFLIR modernization program will utilize a set of ECPs designed to improve pod reliability and maintainability while mitigating numerous obsolescence issues (to include EO and IR cameras, optical path including dome and mirrors, various circuit card assemblies, laser hardware/software and pod firmware/software). Tracking/targeting improvements will be incorporated into the ATFLIR Operational Flight Profile (OFP) currently identified as 15X-530 with subsequent variants to be fielded. ATFLIR Rover Data Link (ARDL) modernization efforts include an encrypted, multi-band digital datalink (hardware/software) to better support network centric operations and the sharing of ATFLIR system imagery with forward air controllers to support the identification and prosecution of targets. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ATFLIR development began in FY1997. Full rate production approval was given in October 2003. Full Operational Capability was met in July 2010. Motion Compensation and Electro-Optical Daylight Operations Improvement upgrades commenced June 2009 with completion planned for December 2019. Image Input Processor ECP-0043 efforts began in FY 2018 and will enable improved video processing and digital output. Laser improvement study (RDTE funded) which completed in FY 2018 will result in a future ECP to modify the laser receiver and laser transmitter/receiver firmware providing for more reliable laser performance with reduced maintenance and less off-wing time.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A+/C/D/E/F			Modification Type: CAPABILITY IMPROVEMENTS					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ARDL (A5, A6) Kits (ECP 6342) - NonOrganic Installation 1 of 2	472 / 1.527	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	472 / 1.527	
1.1.2) ARDL (A3, A4, A8, A9) Kits (ECP 6342) - NonOrganic ⁽²⁰⁾ Installation 1 of 2	974 / 8.437	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	974 / 8.437	
1.1.3) ARDL Hardware Lot 40 - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.045	- / -	- / -	5 / 0.045	
1.1.4) ARDL Hardware Lot 41 - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.130	- / -	- / -	14 / 0.130	
1.1.5) ARDL Hardware Lot 42 - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.219	- / -	- / -	23 / 0.219	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 6.128	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.128	
2.1.1) ATFLIR EOSU ECP10 - RTOC - NonOrganic Installation 2 of 2	419 / 18.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	419 / 18.472	
2.1.8) ATFLIR Modernization Upgrade - NonOrganic Installation 2 of 2	- / -	- / -	- / -	- / -	- / -	- / -	12 / 4.080	12 / 4.162	55 / 19.455	64 / 23.092	371 / 136.538	514 / 187.327	
2.1.2) ECP-0035 IRR Upgrades - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 0.925	- / -	- / -	48 / 0.925	
2.1.3) ECP-0035 VCA Upgrades - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 1.045	- / -	- / -	52 / 1.045	
2.1.4) ECP-0035 IRR/VCA Upgrade - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 2.009	- / -	- / -	15 / 2.009	
2.1.5) ECP-XXXX WGDA Replacement - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	450 / 4.545	- / -	- / -	450 / 4.545	
2.1.6) ECP-043 (I2P2) Production H/W - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 2.700	100 / 2.754	208 / 5.618	408 / 11.072	
2.1.7) ECP-044 Sensors Kits EOSU Mod upgrade - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	49 / 12.495	36 / 9.364	320 / 84.897	405 / 106.756	
2.1.9) ECP-042 I2P2 Circuit Card Assembly (CCA) - Organic ^(*)	- / -	10 / 2.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.231	
2.1.10) ECP-0035 Daylight Ops - Organic ^(*)	210 / 25.525	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	210 / 25.525	
2.1.11) H16 SCS - Organic ^(*)	- / -	- / -	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.042	
2.1.12) OFP5XX - S/W Tracking Updates - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.691	- / 5.000	- / 9.691	
2.1.13) B-Kits Archive - Organic ^(*)	- / 513.738	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 513.738	
2.1.14) Prior Year installs - Organic ^(*)	504 / 3.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	504 / 3.018	
2.2.1) Installation Equipment N/R - Organic ^{(*) (21)}	- / 82.389	- / 7.543	- / -	- / 7.803	- / -	- / 7.803	- / 3.420	- / -	- / -	- / -	- / -	- / 101.155	
Subtotal: Procurement	- / 659.234	- / 9.774	- / 0.042	- / 7.803	- / -	- / 7.803	- / 7.500	- / 4.162	- / 43.568	- / 39.901	- / 232.053	- / 1,004.037	
Support													
3.1) Engineering Change Orders	- / 94.710	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 94.710	
3.2) Data	- / 8.506	- / 0.141	- / 0.198	- / -	- / -	- / -	- / -	- / 0.070	- / 0.356	- / 0.386	- / 0.175	- / 9.832	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A+/C/D/E/F				Modification Type: CAPABILITY IMPROVEMENTS				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.3) Training Equipment	- / 4.315	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.315	
3.4) Support Equipment ⁽²²⁾	- / 66.781	- / 18.714	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 85.495	
3.5) ILS	- / 74.273	- / -	- / -	- / -	- / -	- / -	- / 0.231	- / 0.236	- / 0.240	- / 0.245	- / 1.202	- / 76.427	
3.6) Other Support	- / 14.712	- / 1.552	- / 1.580	- / 1.612	- / -	- / 1.612	- / 1.644	- / 1.677	- / 1.710	- / 1.745	- / 2.601	- / 28.833	
<i>Subtotal: Support</i>	- / 263.297	- / 20.407	- / 1.778	- / 1.612	- / -	- / 1.612	- / 1.875	- / 1.983	- / 2.306	- / 2.376	- / 3.978	- / 299.612	
Installation													
<i>Installation 1 of 2:</i> GRP: ARDL	- / 5.827	- / 0.126	- / 0.094	- / 0.078	- / 0.000	- / 0.078	- / 0.055	- / 0.049	- / 0.040	- / 0.040	- / 2.209	- / 8.518	
<i>Installation 2 of 2:</i> GRP: ATFLIR	- / 1.360	- / 0.270	- / 0.270	- / 0.270	- / 0.000	- / 0.270	- / 0.240	- / 1.212	- / 1.236	- / 5.778	- / 46.615	- / 57.251	
<i>Subtotal: Installation</i>	- / 7.187	- / 0.396	- / 0.364	- / 0.348	- / -	- / 0.348	- / 0.295	- / 1.261	- / 1.276	- / 5.818	- / 48.824	- / 65.769	
Total													
Total Cost (Procurement + Support + Installation)	929.718	30.577	2.184	9.763	0.000	9.763	9.670	7.406	47.150	48.095	284.855	1,369.418	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: GRP: ARDL																															
Manufacturer Information																															
Manufacturer Name: CKA															Manufacturer Location: Orange park, FI																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Mod Team:: Installation Name: ARDL																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		1,082 / 5.827		46 / 0.126		20 / 0.094		12 / 0.078		0 / 0.000		12 / 0.078		11 / 0.055		6 / 0.049		6 / 0.040		6 / 0.040		257 / 2.209		1,446 / 8.518							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		1,082 / 5.827		46 / 0.126		20 / 0.094		12 / 0.078		0 / 0.000		12 / 0.078		11 / 0.055		6 / 0.049		6 / 0.040		6 / 0.040		257 / 2.209		1,446 / 8.518							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1,082	5	12	19	10	3	7	7	3	1	5	5	1	1	3	5	2	1	2	3	-	-	3	3	-	-	3	3	-	257	1,446
Out	1,082	5	12	19	10	3	7	7	3	1	5	5	1	1	3	5	2	1	2	3	-	-	3	3	-	-	3	3	-	257	1,446

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Exhibit P-3a, Individual Modification: PB 2020 Navy

Appropriation / Budget Activity / Budget Sub Activity:
1506N / 05 / 1

P-1 Line Item Number / Title:
0525 / F-18 Series

Modification Number / Title:
7 / Advanced Targeting Forward Looking
Infrared (ATFLIR) (OSIP 12-01)

ID Code (A=Service Ready, B=Not Service Ready) :

MDAP/MAIS Code:

Installation 2 of 2: GRP: ATFLIR

Manufacturer Information

Manufacturer Name: Raytheon

Administrative Leadtime (in Months): 6

Manufacturer Location: Indianapolis, IN

Production Leadtime (in Months): 6

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates				Mar 2021	Mar 2022	Mar 2023	Mar 2024
Delivery Dates				Oct 2021	Oct 2022	Oct 2023	Oct 2024

Installation Information

Method of Implementation: Navy Drive In Mod:: Installation Name: ATFLIR

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	233 / 1.360	48 / 0.270	48 / 0.270	48 / 0.270	0 / 0.000	48 / 0.270	42 / 0.240	- / -	- / -	- / -	0 / 0.000	419 / 2.410
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.212	- / -	- / -	0 / 0.000	12 / 1.212
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.236	- / -	0 / 0.000	12 / 1.236
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	55 / 5.778	0 / 0.000	55 / 5.778
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	64 / 6.848	64 / 6.848
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	371 / 39.767	371 / 39.767
Total	233 / 1.360	48 / 0.270	48 / 0.270	48 / 0.270	0 / 0.000	48 / 0.270	42 / 0.240	12 / 1.212	12 / 1.236	55 / 5.778	435 / 46.615	933 / 57.251

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	233	12	12	12	12	12	12	12	12	12	12	12	12	11	11	10	10	3	3	3	3	3	3	3	3	13	14	14	14	435	933
Out	233	12	12	12	12	12	12	12	12	12	12	12	12	11	11	10	10	3	3	3	3	3	3	3	3	13	14	14	14	435	933

Footnotes:

(20)

The installation of ARDL (A3, A4, A8, A9) kits has been delayed due to aircraft availability based on the requirements needed to train and prepare for deployment.

(21)

Funding for non-recurring engineering in FY20 and FY21 is for ECP-0035 integration into current aircraft configuration for the ATFLIR Modernization program.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 7 / Advanced Targeting Forward Looking Infrared (ATFLIR) (OSIP 12-01)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(22) Funding in the Support Equipment CE (3.4) in FY18 is for ECP 0042 "ATFLIR Specialized Test Equipment Upgrade".		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 8 / F/A-18C/D/E/F and EA-18G Training System (OSIP 006-02)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	260.324	10.808	34.722	29.770	0.000	29.770	30.144	30.666	34.481	35.801	530.923	997.639
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	260.324	10.808	34.722	29.770	0.000	29.770	30.144	30.666	34.481	35.801	530.923	997.639
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	260.324	10.808	34.722	29.770	0.000	29.770	30.144	30.666	34.481	35.801	530.923	997.639
<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: F/A-18C-F and EA-18G training system funds will be used to meet current fleet readiness squadrons and fleet training and readiness requirements. These requirements mandate that the training systems be concurrent with the aircraft hardware, software, and system capabilities. New components and software will be procured to prevent obsolescence of the various trainers throughout the service life of the platform. Funding will also be used to update courseware, computer based training, and maintenance trainers as Engineering Change Proposals (ECPs) are performed on the aircraft. Funds will be used to increase the simulation fidelity of any aircraft driven changes, implement these changes across a distributed architecture, and synthesize these changes into the simulated threat environment. Funds will also be used to enable live, virtual and constructive (LVC) training; linking aircrew training devices and synthetic injects with aircraft flying on live ranges. Funds will also provide rapid technology insertion upgrades to TOFTs and LVC devices to accommodate shifts in technology. Current trainer inventory is 44 maintenance trainers with 32 devices for F/A-18E/F and EA-18G and 12 devices for F/A-18C/D; and 65 aircrew training devices and 93 aircrew cockpits with 39 devices and 62 cockpits for F/A-18E/F and EA-18G and 26 devices and 31 cockpits for F/A-18C/D. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Trainers were procured with APN-1 funding and are modified with ECPs as required.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 8 / F/A-18C/D/E/F and EA-18G Training System (OSIP 006-02)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18C/D/E/F and EA-18G				Modification Type: TRAINERS UPGRADE				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: N/A</i>													
<i>Subtotal: N/A</i>													
<i>Subtotal: Procurement, All Modification Items</i>													
Support (All Modification Items)													
3.3) Training Equipment ⁽²³⁾													
3.5) ILS													
3.6) Other Support													
<i>Subtotal: Support</i>													
Installation													
<i>Subtotal: Installation</i>													
Total													
Total Cost (Procurement + Support + Installation)													
	260.324	10.808	34.722	29.770	0.000	29.770	30.144	30.666	34.481	35.801	530.923	997.639	

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Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0525 / F-18 Series			Modification Number / Title: 8 / F/A-18C/D/E/F and EA-18G Training System (OSIP 006-02)	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 1 of 1: N/A							
Manufacturer Information							
Manufacturer Name: N/A					Manufacturer Location: N/A		
Administrative Leadtime <i>(in Months)</i> :					Production Leadtime <i>(in Months)</i> :		
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Support Only Installation						Installation Quantity: 0	
Footnotes: ⁽²³⁾ Aircrew devices are upgraded on a yearly cycle and the maintenance devices on a two to three year cycle.							

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	876.631	167.253	136.952	135.436	0.000	135.436	138.109	171.348	271.473	310.551	178.926	2,386.679
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	876.631	167.253	136.952	135.436	0.000	135.436	138.109	171.348	271.473	310.551	178.926	2,386.679
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	876.631	167.253	136.952	135.436	0.000	135.436	138.109	171.348	271.473	310.551	178.926	2,386.679
<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: Corrections to discrepancies discovered during testing and development can sometimes be incorporated into production aircraft, effective with the physical configuration audit which establishes the product baseline of the aircraft. However, when this cannot be done due to time constraints, retrofit of the changes into already delivered aircraft requires funding through the Aircraft Modification Program. Corrections to the following items/conditions are required to meet Commander, Naval Air Force directed transitions as promulgated in the current Master Aviation Plan. This Operational, Safety and Improvement Program (OSIP) will correct operational discrepancies discovered during testing and evaluations, sustainment activities, engineering analysis, standard depot level evaluations, and during normal fleet operations. This OSIP provides resources to correct such issues via Engineering Change Proposal (ECP) and other applicable procurement efforts by modifying, improving, and restoring aircraft structural safety and reliability to designed/required life limits. Modifications are to include: Air Frame Structural Upgrades, such as Flight Controls Surfaces, Forward Fuselage, Aft Fuselage, Inner/Outer Wing, Critical Structures; and Aircraft Subsystem Upgrades, such as Electrical, Hydraulic, Environmental Control Systems (ECS), Fuel, Launch & Recovery, Critical Structures, Mechanical, Secondary Power, Fire Suppression Systems, Blue Angels modifications, and other sustainment activities. This OSIP will provide modifications to Flight Control Computer (FCC) Operational Flight Programs (OFP) and provide other upgrades to integrate Maritime Augmented Guidance with Integrated Controls for Carrier Approach and Recovery Precision Enabling Technologies (MAGIC CARPET), Phase 2, Step 2. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Each change has been or will be tested prior to installation in the F/A-18E/F and EA-18G. NOTE: Kit procurements were budgeted and executed properly, in alignment with planned organic depot inductions. Aircraft inductions have exceeded depot capacity due to many aircraft reaching service life limits at the same time, increased turnaround time due to material degradation and corrosion repairs over and above planned modification efforts, and delays caused by sequestration which increased the number of Out of Reporting (OOR) aircraft. Due to these depot constraints, prior year kit procurements became misaligned with aircraft installations. Depot level kit installations have been impacted by depot throughput constraints and backlog. The install schedules reflected in this budget take into account the current constrained depot throughput and backlog. ECPs (6416, 6477, 6478, and 6488) for Physiological Episodes (PE) efforts are realigned from OSIP 14-03 to OSIP 13-19 beginning in FY19.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 E/F & EA-18G					Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT				Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ECP-1049 Fuel Pressurization System Check Valve Failure - NonOrganic <i>Installation 1 of 14</i>	59 / 0.098	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 0.098	
1.1.2) ECP-1137NI: Fire Extinguisher Temp Compensating Pressure Switch (TCPS) - NonOrganic <i>Installation 1 of 14</i>	17 / 0.062	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.062	
1.1.3) ECP-5046C1 BALD Transponder Rotation - Change Incorporation Level - NonOrganic <i>Installation 1 of 14</i>	133 / 0.090	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	133 / 0.090	
1.1.4) ECP-5073: Retrofit of the Trailing Edge Flap Fastener Hole Cold Working - NonOrganic <i>Installation 1 of 14</i>	69 / 0.177	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 0.177	
1.1.6) ECP-6089R1 Engine Bay Door Strut Redesign - NonOrganic <i>Installation 1 of 14</i>	69 / 0.003	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 0.003	
1.1.7) ECP-6106R1 Exhaust Overtemp Final Fix/Bard Stacks - NonOrganic <i>Installation 1 of 14</i>	223 / 15.966	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	223 / 15.966	
1.1.8) ECP-6118 Keel Access Cover @ Y631-Y645 - NonOrganic (24) <i>Installation 1 of 14</i>	19 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.000	
1.1.9) ECP-6188 Y436 Inlet Former - NonOrganic <i>Installation 1 of 14</i>	183 / 1.912	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	183 / 1.912	
1.1.10) ECP-6193R1/R2 (LEX) Lwr Surface/Structure Cracks Redesign Y286 / Y294 - NonOrganic <i>Installation 1 of 14</i>	219 / 27.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	219 / 27.472	
1.1.11) ECP-6198 Radar Bay Vent Valve Fail - MSP 862 - NonOrganic <i>Installation 1 of 14</i>	91 / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	91 / 0.005	
1.1.12) ECP-6206 Y679 Former Boot Strap Interface Fillet Seal Missing - NonOrganic <i>Installation 1 of 14</i>	80 / 0.014	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	80 / 0.014	
1.1.14) ECP-6217 Cockpit Pressure Warning System (CPWS) - NonOrganic <i>Installation 1 of 14</i>	292 / 2.869	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	292 / 2.869	
1.1.15) ECP-6221 Bay 4L-Y357 Bulkhead Horizontal Flange Life Limit - NonOrganic <i>Installation 1 of 14</i>	109 / 1.028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	109 / 1.028	

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 E/F & EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
1.1.17) ECP-6231 ECS/APU Bay Sealing Issues - NonOrganic (25) Installation 1 of 14	11 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.000	
1.1.19) ECP-6238 Inadequate Clearance - APU Surge Cntrl Valve & Y568 Spt - NonOrganic Installation 1 of 14	124 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	124 / 0.000	
1.1.20) ECP-6240R1 / FT50 18K MLG Sidebrace Fitting Failure - NonOrganic Installation 1 of 14	296 / 13.430	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	296 / 13.430	
1.1.21) ECP-6245 Inboard Wing Closure Bolt, Anti-Rotation Retainer - NonOrganic Installation 1 of 14	21 / 0.247	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.247	
1.1.22) ECP-6249 Nut Plate Installation Sealing - NonOrganic Installation 1 of 14	212 / 0.107	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	212 / 0.107	
1.1.23) ECP-6262 Y591 Bulkhead Missing Fasteners at Keel Longeron - NonOrganic Installation 1 of 14	181 / 1.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	181 / 1.082	
1.1.24) ECP-6301 Doors 37, 307, and 124 Drainage Issues - NonOrganic (26) Installation 1 of 14	251 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	251 / 0.000	
1.1.25) ECP-6308 ECS warm air duct deflections - NonOrganic Installation 1 of 14	218 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	218 / 0.000	
1.1.26) ECP-6322 Dry Bay Fire Suppression System (DBFSS) - NonOrganic Installation 1 of 14	373 / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	373 / 0.650	
1.1.27) ECP-6325R1 Y618 Inbrd Former / Keel Longeron Arrestment Load - NonOrganic Installation 1 of 14	458 / 0.519	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	458 / 0.519	
1.1.28) ECP-6353 F/A-18E/F Lower Wing Hinge Corrosion Improvements - NonOrganic Installation 1 of 14	204 / 1.995	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 1.995	
1.1.29) ECP-6366 Outer-Wing Inboard Aileron Hinge and SPAR 4 - NonOrganic Installation 1 of 14	84 / 1.623	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	84 / 1.623	
1.1.30) ECP-6372 Y233 Bulkhead Rudder / Break Pully Bracket Attachment - NonOrganic Installation 1 of 14	351 / 0.118	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	351 / 0.118	
1.1.31) ECP-6388 Outer-Wing Water Drainage Provisions - NonOrganic Installation 1 of 14	338 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	338 / 0.000	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: F/A-18 E/F & EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
1.1.35) ECP-6416 Environment Control Sys Anti-Ice Duct Bracket - NonOrganic ⁽²⁷⁾ Installation 1 of 14	288 / 2.609	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	288 / 2.609
1.1.37) ECP-6428 Removal of Vertical Tail Drain Common to Fuel Vent Tank - NonOrganic ⁽²⁸⁾ Installation 1 of 14	435 / 0.000	- / 0.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	435 / 0.143
1.1.65) Fatigue Test (FT) 50 (Structures) Prior Year ECPs - NonOrganic ⁽²⁹⁾ Installation 1 of 14	3,801 / 13.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3,801 / 13.104
1.1.66) Fatigue Test (FT) 76/77/78 (Wing) Prior Year ECPs - NonOrganic ⁽³⁰⁾ Installation 1 of 14	838 / 31.675	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	838 / 31.675
1.1.67) Main Landing Gear (MLG) Prior Year ECPs - NonOrganic ⁽³¹⁾ Installation 1 of 14	200 / 0.606	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	200 / 0.606
1.1.5) ECP 615 GGU-12/A Catalyst Sieve Bed Sets - Organic ^(*)	785 / 3.904	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	785 / 3.904
1.1.13) ECP-6213R2 / TEF Redesign - Organic ^(*)	194 / 165.678	- / -	48 / 45.822	14 / 13.116	- / -	14 / 13.116	18 / 17.786	62 / 62.355	60 / 61.420	58 / 60.336	92 / 96.018	546 / 522.531
1.1.16) ECP-6227C2/C3 Inlet Nacelle Bleed Plate Crack - NonOrganic Installation 2 of 14	220 / 3.936	- / -	77 / 1.197	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	297 / 5.133
1.1.18) ECP-6234C1 Horizontal Stabilator/Fuselage Rubbing - NonOrganic Installation 3 of 14	35 / 0.323	- / -	- / -	30 / 0.303	- / -	30 / 0.303	30 / 0.308	30 / 0.314	30 / 0.319	30 / 0.325	73 / 0.792	258 / 2.684
1.1.32) ECP-6394R1: F/A-18E/F Horizontal Stab Gang Channel Corrosion-AYC-1682 - NonOrganic ⁽³²⁾ Installation 4 of 14	73 / 0.000	72 / 0.000	60 / 0.000	60 / 0.000	- / -	60 / 0.000	14 / 0.000	14 / 0.000	- / -	- / -	- / -	293 / 0.000
1.1.33) ECP-6394R1 Horizontal Stabilator Gang Channel Corrosion - AYC-1717 - NonOrganic Installation 5 of 14	95 / 0.687	- / -	- / -	33 / 0.278	- / -	33 / 0.278	33 / 0.283	33 / 0.288	33 / 0.293	33 / 0.299	171 / 1.542	431 / 3.670
1.1.34) ECP-6392C1 F/A-18E/F & EA-18G Alternate Angle-of-Attack Transmitter - Organic ^(*)	- / -	180 / 8.322	120 / 5.648	120 / 5.750	- / -	120 / 5.750	120 / 5.853	112 / 5.561	- / -	- / -	- / -	652 / 31.134
1.1.36) ECP 6417C1 - Cabin Diverter Valve Redesign - Organic ^(*)	2 / 0.147	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.147
1.1.38) ECP-6430 Enhancement of the Aft Pivot Support Fitting - NonOrganic Installation 6 of 14	432 / 3.834	- / -	- / -	- / -	- / -	- / -	- / -	- / -	108 / 1.183	107 / 1.189	- / -	647 / 6.206

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 E/F & EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
1.1.39) ECP-XX12 FT50 Teardown Bulkhead Cracking - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 0.996	- / -	72 / 0.996	72 / 1.014	72 / 1.032	72 / 1.051	37 / 0.550	- / -	325 / 4.643	
1.1.40) ECP-XX33 / Hydraulics Components Improvement - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 0.070	- / -	72 / 0.070	72 / 0.072	72 / 0.073	11 / 0.011	- / -	- / -	227 / 0.226	
1.1.41) ECP-XX45 / FT50 Structural Related Issues - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 6.376	- / -	72 / 6.376	72 / 6.491	72 / 6.608	72 / 6.727	37 / 3.519	- / -	325 / 29.721	
1.1.42) ECP-XX47 Flight Control Surfaces Failures - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 4.506	- / -	72 / 4.506	72 / 4.587	72 / 4.669	72 / 4.753	37 / 2.487	- / -	325 / 21.002	
1.1.43) ECP-XX48 / Fuel Tank Wiring Retrofit Improvements - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 0.451	- / -	72 / 0.451	72 / 0.459	72 / 0.467	72 / 0.476	72 / 0.484	109 / 0.747	469 / 3.084	
1.1.48) ECP-XX55: F/A-18 OBOGS Catalyst Integration Modline - NonOrganic Installation 7 of 14	- / -	- / -	- / -	72 / 0.085	- / -	72 / 0.085	72 / 0.087	72 / 0.088	72 / 0.090	72 / 0.091	140 / 0.181	500 / 0.622	
1.1.44) ECP-XX50: F/A-18E/F Fuel Related Upgrade Issues - Organic ^(*)	- / -	- / -	- / -	100 / 0.627	- / -	100 / 0.627	100 / 0.638	100 / 0.649	100 / 0.661	100 / 0.673	- / -	500 / 3.248	
1.1.45) ECP-XX51 / F/A-18E/F ECS Subsystem Upgrade Issues - NonOrganic Installation 8 of 14	- / -	- / -	- / -	72 / 0.510	- / -	72 / 0.510	72 / 0.519	72 / 0.529	72 / 0.538	72 / 0.548	140 / 1.084	500 / 3.728	
1.1.46) ECP-XX52 / F/A-18E/F Subsystem Retrofit Upgrade Issues - NonOrganic Installation 8 of 14	- / -	- / -	- / -	72 / 0.638	- / -	72 / 0.638	72 / 0.649	72 / 0.661	72 / 0.673	72 / 0.685	140 / 1.356	500 / 4.662	
1.1.47) ECP-XX53 / F/A-18E/F Structure Stress Corrosion Cracking Issues - NonOrganic Installation 8 of 14	- / -	- / -	- / -	72 / 1.700	- / -	72 / 1.700	72 / 1.731	72 / 1.762	72 / 1.794	72 / 1.826	140 / 3.615	500 / 12.428	
1.1.49) ECP-XX60: NACES Retrofit Upgrades - Organic ^(*)	- / -	- / -	- / -	100 / 1.720	- / -	100 / 1.720	100 / 1.751	100 / 1.782	100 / 1.814	100 / 1.847	- / -	500 / 8.914	
1.1.50) ECP-XX61 BLK III CFT Upgrade - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 111.600	31 / 113.609	- / -	62 / 225.209	
1.1.51) ECP-6470 Redesign Of The Hydraulic Pump Return Hose - Organic ^(*)	687 / 5.169	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	687 / 5.169	
1.1.52) ECP-6475 Aux Power Unit Hydraulic Accumulator Support Bracket - NonOrganic ⁽³³⁾ Installation 9 of 14	22 / 0.000	72 / 0.416	72 / 0.424	72 / 0.431	- / -	72 / 0.431	72 / 0.439	72 / 0.447	48 / 0.303	- / -	- / -	430 / 2.460	
1.1.53) ECP-6476 In-Flight Refueling Pressure Regulator Removal - Organic ^(*)	582 / 0.891	122 / 0.186	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	704 / 1.077	

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 E/F & EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
1.1.54) ECP-6477 ECS Primary Bleed Air Pressure & Shut Off Valve - Organic ^(*) (34)	716 / 6.200	540 / 19.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,256 / 25.800	
1.1.55) ECP-6478 ECS Items 51 & 26 Improvements - Organic ^(*) (35)	4 / 0.050	360 / 1.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	364 / 1.400	
1.1.56) ECP-6480: Navy Flight Demo Squadron (Blue Angels) Super Hornet - NonOrganic Installation 10 of 14	- / -	11 / 9.361	7 / 5.895	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 15.256	
1.1.57) ECP-6487: Retrofit to Address Y491 Bulkhead Cracks - NonOrganic Installation 11 of 14	- / -	18 / 0.489	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.489	
1.1.58) ECP 6488 - Secondary Bleed air regulator & Shut Off Valve Improvement - Organic ^(*) (36)	2 / 0.200	413 / 17.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	415 / 17.680	
1.1.59) ECP-6495 STS Electrohydraulic Test Stand Obsolescence Upgrade - NonOrganic Installation 12 of 14	- / -	5 / 7.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 7.200	
1.1.60) ECP-6499 Update of the Lateral Stick Position Sensor - NonOrganic Installation 13 of 14	- / -	4 / 0.418	100 / 2.500	100 / 2.545	- / -	100 / 2.545	100 / 2.591	100 / 2.637	100 / 2.685	- / -	- / -	504 / 13.376	
1.1.61) ECP-6500 ECS Heater Element - Organic ^(*)	- / -	700 / 1.890	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	700 / 1.890	
1.1.62) ECP 6504 Windshield Sealing Improvements - NonOrganic ⁽³⁷⁾ Installation 14 of 14	- / -	- / -	38 / 0.000	144 / 0.000	- / -	144 / 0.000	144 / 0.000	144 / 0.000	144 / 0.000	81 / 0.000	- / -	695 / 0.000	
1.1.63) ECP-6506 CPOMS Improvements - Organic ^(*)	- / -	697 / 13.453	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	697 / 13.453	
1.1.68) Archived ECPs - Organic ^(*)	- / 57.685	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 57.685	
1.2.1) Installation Kits N/R - Organic ^(*) (38)	- / 100.479	- / 28.213	- / 6.234	- / 8.653	- / -	- / 8.653	- / 8.011	- / 6.959	- / 8.966	- / 58.531	- / 9.306	- / 235.352	
Subtotal: Procurement	- / 466.644	- / 108.521	- / 67.720	- / 48.755	- / -	- / 48.755	- / 53.269	- / 96.881	- / 205.357	- / 246.999	- / 114.641	- / 1,408.787	
Support													
3.2) Software	- / 0.456	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.456	
3.3) Data	- / 3.785	- / 0.098	- / 0.281	- / 0.286	- / -	- / 0.286	- / 0.291	- / 0.296	- / 0.302	- / 0.307	- / 0.313	- / 5.959	
3.4) Training Equipment	- / 0.001	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	
3.5) Support Equipment	- / 27.286	- / 6.710	- / 6.679	- / 7.592	- / -	- / 7.592	- / 4.537	- / 5.837	- / 5.941	- / 6.048	- / 6.157	- / 76.787	
3.6) ILS	- / 108.240	- / 14.239	- / 14.495	- / 14.958	- / -	- / 14.958	- / 15.234	- / 15.508	- / 15.787	- / 16.072	- / 16.361	- / 230.894	
3.7) Other Support	- / 78.169	- / 11.395	- / 11.601	- / 11.809	- / -	- / 11.809	- / 12.022	- / 12.238	- / 12.459	- / 12.683	- / 12.911	- / 175.287	
3.9) Installation Cost ⁽³⁹⁾	257 / 20.697	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	257 / 20.697	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F/A-18 E/F & EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Subtotal: Support	- / 238.634	- / 32.442	- / 33.056	- / 34.645	- / -	- / 34.645	- / 32.084	- / 33.879	- / 34.489	- / 35.110	- / 35.742	- / 510.081
Installation												
Installation 1 of 14: GRP: Prior Year Procurements	- / 171.172	- / 26.114	- / 28.777	- / 27.830	- / 0.000	- / 27.830	- / 22.543	- / 16.386	- / 7.059	- / 3.280	- / 8.468	- / 311.629
Installation 2 of 14: ECP-6227C2/C3 Inlet Nacelle Bleed Plate Crack	- / -	- / -	- / 2.196	- / 2.236	- / 0.000	- / 2.236	- / 2.276	- / 2.317	- / 2.358	- / 2.851	- / 0.000	- / 14.234
Installation 3 of 14: ECP-6234C1 Horizontal Stabilator/ Fuselage Rubbing	- / -	- / -	- / -	- / 0.175	- / 0.000	- / 0.175	- / 0.189	- / 0.325	- / 0.326	- / 0.332	- / 1.472	- / 2.819
Installation 4 of 14: ECP-6394R1: F/A-18E/F Horizontal Stab Gang Channel Corrosion-AYC-1682	- / 0.181	- / 0.176	- / 0.149	- / 0.152	- / 0.000	- / 0.152	- / 0.036	- / 0.037	- / -	- / -	- / 0.000	- / 0.731
Installation 5 of 14: ECP-6394R1 Horizontal Stabilator Gang Channel Corrosion - AYC-1717	- / -	- / -	- / 1.119	- / -	- / -	- / -	- / 0.425	- / 0.433	- / 0.441	- / 0.449	- / 1.603	- / 4.470
Installation 6 of 14: ECP-6430 Enhancement of the Aft Pivot Support Fitting	- / -	- / -	- / 1.418	- / 1.443	- / 0.000	- / 1.443	- / 1.469	- / 1.496	- / 1.523	- / 1.550	- / 4.164	- / 13.063
Installation 7 of 14: GRP: E/F/G Concurrent Installs	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.761	- / 11.967	- / 12.186	- / 12.232	- / 7.398	- / 55.544
Installation 8 of 14: GRP: E/F Concurrent Installs	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.564	- / 1.593	- / 1.622	- / 1.651	- / 4.948	- / 11.378
Installation 9 of 14: ECP-6475 Aux Power Unit Hydraulic Accumulator Support Bracket	- / -	- / -	- / -	- / 0.084	- / 0.000	- / 0.084	- / 0.278	- / 0.283	- / 0.288	- / 0.294	- / 0.490	- / 1.717
Installation 10 of 14: ECP-6480: Navy Flight Demo Squadron (Blue Angels) Super Hornet	- / -	- / -	- / 2.000	- / 9.460	- / 0.000	- / 9.460	- / 6.793	- / -	- / -	- / -	- / 0.000	- / 18.253
Installation 11 of 14: ECP-6487: Retrofit to Address Y491 Bulkhead Cracks	- / -	- / -	- / -	- / 3.218	- / 0.000	- / 3.218	- / -	- / -	- / -	- / -	- / 0.000	- / 3.218
Installation 12 of 14: ECP-6495 STS Electrohydraulic Test Stand Obsolescence Upgrade	- / -	- / -	- / -	- / 4.000	- / 0.000	- / 4.000	- / -	- / -	- / -	- / -	- / 0.000	- / 4.000
Installation 13 of 14: ECP-6499 Update of the Lateral Stick Position Sensor	- / -	- / -	- / 0.500	- / 3.373	- / 0.000	- / 3.373	- / 5.357	- / 5.686	- / 5.759	- / 5.767	- / 0.000	- / 26.442
Installation 14 of 14: ECP 6504 Windshield Sealing Improvements	- / -	- / -	- / 0.017	- / 0.065	- / 0.000	- / 0.065	- / 0.065	- / 0.065	- / 0.065	- / 0.036	- / 0.000	- / 0.313
Subtotal: Installation	- / 171.353	- / 26.290	- / 36.176	- / 52.036	- / -	- / 52.036	- / 52.756	- / 40.588	- / 31.627	- / 28.442	- / 28.543	- / 467.811
Total												
Total Cost (Procurement + Support + Installation)	876.631	167.253	136.952	135.436	0.000	135.436	138.109	171.348	271.473	310.551	178.926	2,386.679

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Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 14: GRP: Prior Year Procurements																															
Manufacturer Information																															
Manufacturer Name: Various - Prior Year Procurements Less than \$5M ⁽⁴⁰⁾															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 36																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: Prior Year Procurements																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)																	
Prior Years		6,391 / 171.172	792 / 26.114	1,013 / 28.777	875 / 27.830	0 / 0.000	875 / 27.830	594 / 22.543	337 / 16.386	95 / 7.059	78 / 3.280	72 / 8.468	10,247 / 311.629																		
FY 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		6,391 / 171.172	792 / 26.114	1,013 / 28.777	875 / 27.830	0 / 0.000	875 / 27.830	594 / 22.543	337 / 16.386	95 / 7.059	78 / 3.280	72 / 8.468	10,247 / 311.629																		
Installation Schedule																															
		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
	PYS	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	6,391	183	189	199	221	254	258	249	252	219	222	217	217	149	151	146	148	86	84	87	80	24	23	24	24	19	19	19	21	72	10,247
Out	6,391	183	189	199	221	254	258	249	252	219	222	217	217	149	151	146	148	86	84	87	80	24	23	24	24	19	19	19	21	72	10,247

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 14: ECP-6227C2/C3 Inlet Nacelle Bleed Plate Crack																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-6227C2/C3 Inlet Nacelle Bleed Plate Crack															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (<i>in Months</i>): 9															Production Leadtime (<i>in Months</i>): 46																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jun 2019																									
Delivery Dates						Apr 2023																									
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-6227C2/C3 Inlet Nacelle Bleed Plate Crack																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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		- / -	- / -	48 / 2.196	48 / 2.236	0 / 0.000	48 / 2.236	48 / 2.276	48 / 2.317	28 / 1.376	- / -	0 / 0.000	220 / 10.401																		
FY 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.982	57 / 2.851	0 / 0.000	77 / 3.833																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	48 / 2.196	48 / 2.236	0 / 0.000	48 / 2.236	48 / 2.276	48 / 2.317	48 / 2.358	57 / 2.851	0 / 0.000	297 / 14.234																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	28	29	-	-	-	297
Out	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	28	29	-	-	-	297

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 14: ECP-6234C1 Horizontal Stabilator/Fuselage Rubbing																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6234/C1 Horizontal Stabilator/Fuselage Rubbing															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Delivery Dates										Oct 2021				Oct 2022				Oct 2023				Oct 2024				Oct 2025					
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-6234C1 Horizontal Stabilator/Fuselage Rubbing																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		- / -		17 / 0.175		0 / 0.000		17 / 0.175		18 / 0.189		- / -		- / -		- / -		0 / 0.000		35 / 0.364							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 0.325		- / -		- / -		0 / 0.000		30 / 0.325							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 0.326		- / -		0 / 0.000		30 / 0.326							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 0.332		0 / 0.000		30 / 0.332							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 0.332		30 / 0.332							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 0.332		30 / 0.332							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		73 / 0.808		73 / 0.808							
Total		- / -		- / -		- / -		17 / 0.175		0 / 0.000		17 / 0.175		18 / 0.189		30 / 0.325		30 / 0.326		30 / 0.332		133 / 1.472		258 / 2.819							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	5	4	4	5	5	7	7	8	8	7	7	8	8	7	7	8	8		
Out	-	-	-	-	-	-	-	-	-	4	4	4	5	4	4	5	5	7	7	8	8	7	7	8	8	7	7	8	8		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 14: ECP-6394R1: F/A-18E/F Horizontal Stab Gang Channel Corrosion-AYC-1682																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6394R1 F/A-18E/F Horizontal Stab Gang Channel Corrosion															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Dec 2018				Dec 2019				Dec 2020				Dec 2021													
Delivery Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021				Mar 2022													
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-6394R1: F/A-18E/F Horizontal Stab Gang Channel																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		73 / 0.181		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		73 / 0.181					
FY 2018		- / -		72 / 0.176		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		72 / 0.176					
FY 2019		- / -		- / -		60 / 0.149		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.149					
FY 2020		- / -		- / -		- / -		60 / 0.152		0 / 0.000		60 / 0.152		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.152					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.036		- / -		- / -		- / -		- / -		0 / 0.000		14 / 0.036					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.037		- / -		- / -		- / -		0 / 0.000		14 / 0.037					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		73 / 0.181		72 / 0.176		60 / 0.149		60 / 0.152		0 / 0.000		60 / 0.152		14 / 0.036		14 / 0.037		- / -		- / -		- / -		0 / 0.000		293 / 0.731					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	73	-	-	36	36	-	-	30	30	-	-	30	30	-	-	7	7	-	-	7	7	-	-	-	-	-	-	-	-	-	293
Out	73	-	-	36	36	-	-	30	30	-	-	30	30	-	-	7	7	-	-	7	7	-	-	-	-	-	-	-	-	-	293

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 14: ECP-6394R1 Horizontal Stabilator Gang Channel Corrosion - AYC-1717																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-6394R1 Horizontal Stabilator Gang Channel Corrosion - AYC-1717															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-6394R1 Horizontal Stabilator Gang Channel Cor																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -	- / -		95 / 1.119		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		95 / 1.119								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		33 / 0.425		- / -		- / -		- / -		0 / 0.000		33 / 0.425								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		33 / 0.433		- / -		- / -		0 / 0.000		33 / 0.433								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		33 / 0.441		- / -		0 / 0.000		33 / 0.441								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		33 / 0.449		0 / 0.000		33 / 0.449								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		33 / 0.458		33 / 0.458								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		171 / 1.145		171 / 1.145								
Total		- / -	- / -		95 / 1.119		- / -		- / -		- / -		33 / 0.425		33 / 0.433		33 / 0.441		33 / 0.449		204 / 1.603		431 / 4.470								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	23	24	24	24	-	-	-	-	8	8	8	9	8	8	8	9	8	8	8	9	8	8	8	9	204	431
Out	-	-	-	-	-	23	24	24	24	-	-	-	-	8	8	8	9	8	8	8	9	8	8	8	9	8	8	8	9	204	431

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 14: ECP-6430 Enhancement of the Aft Pivot Support Fitting																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6430 Enhancement of the Aft Pivot Support Fitting															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (in Months): 12															Production Leadtime (in Months): 19																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Sep 2023				Sep 2024					
Delivery Dates																						Apr 2025				Apr 2026					
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-6430 Enhancement of the Aft Pivot Support Fitt																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -	- / -		72 / 1.418		72 / 1.443		0 / 0.000		72 / 1.443		72 / 1.469		72 / 1.496		72 / 1.523		72 / 1.550		0 / 0.000		432 / 8.899								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		108 / 2.087		108 / 2.087								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		107 / 2.077		107 / 2.077								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		72 / 1.418		72 / 1.443		0 / 0.000		72 / 1.443		72 / 1.469		72 / 1.496		72 / 1.523		72 / 1.550		215 / 4.164		647 / 13.063								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	215	647	
Out	-	-	-	-	-	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	215	647	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 14: GRP: E/F/G Concurrent Installs																															
Manufacturer Information																															
Manufacturer Name: Boeing - E/F A-kits															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 9															Production Leadtime (<i>in Months</i>): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: E/F/G Concurrent Installs																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		432 / 11.761		- / -		- / -		- / -		0 / 0.000		432 / 11.761					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		432 / 11.967		- / -		- / -		0 / 0.000		432 / 11.967					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		432 / 12.186		- / -		0 / 0.000		432 / 12.186					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		371 / 12.232		0 / 0.000		371 / 12.232					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		255 / 6.929		255 / 6.929					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		249 / 0.469		249 / 0.469					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		432 / 11.761		432 / 11.967		432 / 12.186		371 / 12.232		504 / 7.398		2,171 / 55.544			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	108	108	108	108	108	108	108	108	108	108	108	108	92	93	93	93	504	2,171
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	108	108	108	108	108	108	108	108	108	108	108	108	92	93	93	93	504	2,171

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 14: GRP: E/F Concurrent Installs																															
Manufacturer Information																															
Manufacturer Name: Various - E/F Concurrent Installs															Manufacturer Location: Various																
Administrative Leadtime (in Months): 9															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: E/F Concurrent Installs																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.564		- / -		- / -		- / -		0 / 0.000		216 / 1.564					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.593		- / -		- / -		0 / 0.000		216 / 1.593					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.622		- / -		0 / 0.000		216 / 1.622					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.651		0 / 0.000		216 / 1.651					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.681		216 / 1.681					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		420 / 3.267		420 / 3.267					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		216 / 1.564		216 / 1.593		216 / 1.622		216 / 1.651		636 / 4.948		1,500 / 11.378					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	636	1,500
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	636	1,500

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 9 of 14: ECP-6475 Aux Power Unit Hydraulic Accumulator Support Bracket																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-6475 Aux Power Unit Hydraulic Accumulator Support Bracket															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 24																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Sep 2018				Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023									
Delivery Dates		Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024				Sep 2025									
Installation Information																															
Method of Implementation: Navy Drive-in Modification:: Installation Name: ECP-6475 Aux Power Unit Hydraulic Accumulator Suppor																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		22 / 0.084		0 / 0.000		22 / 0.084		- / -		- / -		- / -		- / -		0 / 0.000		22 / 0.084								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		72 / 0.278		- / -		- / -		- / -		0 / 0.000		72 / 0.278								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		72 / 0.283		- / -		- / -		0 / 0.000		72 / 0.283								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		72 / 0.288		- / -		0 / 0.000		72 / 0.288								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		72 / 0.294		0 / 0.000		72 / 0.294								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		72 / 0.294		72 / 0.294								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.196		48 / 0.196								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		22 / 0.084		0 / 0.000		22 / 0.084		72 / 0.278		72 / 0.283		72 / 0.288		72 / 0.294		120 / 0.490		430 / 1.717								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	120	430
Out	-	-	-	-	-	-	-	-	-	-	-	11	11	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	120	430

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 10 of 14: ECP-6480: Navy Flight Demo Squadron (Blue Angels) Super Hornet																															
Manufacturer Information																															
Manufacturer Name: Various - ECP-6480: Navy Flight Demo Squadron (Blue Angels) Super Hornet ⁽⁴¹⁾															Manufacturer Location: Various																
Administrative Leadtime (in Months): 12															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jun 2018				Sep 2019																									
Delivery Dates		Sep 2019				Sep 2020																									
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-6480: Navy Flight Demo Squadron (Blue Angels)																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	2 / 2.000	9 / 9.460	0 / 0.000	9 / 9.460	- / -	- / -	- / -	- / -	0 / 0.000	11 / 11.460																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	7 / 6.793	- / -	- / -	- / -	0 / 0.000	7 / 6.793																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	2 / 2.000	9 / 9.460	0 / 0.000	9 / 9.460	7 / 6.793	- / -	- / -	- / -	0 / 0.000	18 / 18.253																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	-	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Out	-	-	-	-	-	-	-	-	2	3	3	3	-	1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	18

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 11 of 14: ECP-6487: Retrofit to Address Y491 Bulkhead Cracks																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-6487: Retrofit to Address Y491 Bulkhead Cracks															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 18																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018																													
Delivery Dates		Oct 2019																													
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP-6487: Retrofit to Address Y491 Bulkhead Cracks																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	18 / 3.218	0 / 0.000	18 / 3.218	- / -	- / -	- / -	- / -	0 / 0.000	18 / 3.218																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	18 / 3.218	0 / 0.000	18 / 3.218	- / -	- / -	- / -	- / -	0 / 0.000	18 / 3.218																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Out	-	-	-	-	-	-	-	-	-	4	4	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 12 of 14: ECP-6495 STS Electrohydraulic Test Stand Obsolescence Upgrade																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6495															Manufacturer Location: Boeing - St. louis																
Administrative Leadtime (in Months): 12															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Sep 2018																													
Delivery Dates		Sep 2019																													
Installation Information																															
Method of Implementation: Contractor Field Team:: Installation Name: ECP-6495 STS Electrohydraulic Test Stand Obsolescence Upg																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		5 / 4.000		0 / 0.000		5 / 4.000		- / -		- / -		- / -		- / -		0 / 0.000		5 / 4.000								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		5 / 4.000		0 / 0.000		5 / 4.000		- / -		- / -		- / -		- / -		0 / 0.000		5 / 4.000								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Out	-	-	-	-	-	-	-	-	-	1	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 13 of 14: ECP-6499 Update of the Lateral Stick Position Sensor																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6499															Manufacturer Location: Various																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022									
Delivery Dates		Sep 2018				Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023									
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-6499 Update of the Lateral Stick Position Sensor																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		4 / 0.500		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.500						
FY 2019		- / -	- / -		- / -		100 / 3.373		0 / 0.000		100 / 3.373		- / -		- / -		- / -		- / -		- / -		0 / 0.000		100 / 3.373						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		100 / 5.357		- / -		- / -		- / -		- / -		0 / 0.000		100 / 5.357						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		100 / 5.686		- / -		- / -		- / -		0 / 0.000		100 / 5.686						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		100 / 5.759		- / -		- / -		0 / 0.000		100 / 5.759						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		100 / 5.767		0 / 0.000		100 / 5.767						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		4 / 0.500		100 / 3.373		0 / 0.000		100 / 3.373		100 / 5.357		100 / 5.686		100 / 5.759		100 / 5.767		0 / 0.000		504 / 26.442								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	-	504
Out	-	-	-	-	-	1	1	1	1	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	-	504

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 14 of 14: ECP 6504 Windshield Sealing Improvements																															
Manufacturer Information																															
Manufacturer Name: N/A - ECP 6504 Windshield Sealing Improv															Manufacturer Location: N/A																
Administrative Leadtime <i>(in Months)</i> : 0															Production Leadtime <i>(in Months)</i> : 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Field Modification Team:: Installation Name: ECP 6504 Windshield Sealing Improvements																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	38 / 0.017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	38 / 0.017																		
FY 2020		- / -	- / -	- / -	144 / 0.065	0 / 0.000	144 / 0.065	- / -	- / -	- / -	- / -	0 / 0.000	144 / 0.065																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	144 / 0.065	- / -	- / -	- / -	0 / 0.000	144 / 0.065																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	144 / 0.065	- / -	- / -	0 / 0.000	144 / 0.065																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	144 / 0.065	- / -	0 / 0.000	144 / 0.065																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 0.036	0 / 0.000	81 / 0.036																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	38 / 0.017	144 / 0.065	0 / 0.000	144 / 0.065	144 / 0.065	144 / 0.065	144 / 0.065	81 / 0.036	0 / 0.000	695 / 0.313																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	36	-	-	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	9	-	-	695
Out	-	-	-	-	-	2	36	-	-	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	9	-	-	695
Footnotes: ⁽²⁴⁾ Kits were procured under OSIP 19-01, starting in FY10, installs are funded under OSIP 14-03 ⁽²⁵⁾ ECP-6231 kits were purchased under OSIP 19-01																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 9 / E/F & EA-18G Correction of Operational Discrepancies (OSIP 14-03)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(26) installs are required and listed as OOW (27) Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts. (28) All kits were provided by OEM as in warranty. In FY18 procurement of 200 "on-condition" fittings (\$143K) via FRCSE Manufacturing. (29) This cost element includes the following ECPs related to Fatigue Test (FT) 50 for Structures: ECP-6183R1 FT50 Failure of Upper Wing Skin Splice Plate; ECP-6239R1 FT50 18K Fuselage Outboard Formal @Y679 Failure; ECP-6247R1 FT50 18K Y520 Former Cracks at Lower Drop Link; ECP-6266 FT50 18K Y555.5 and Y568 Former Cracks at Keel Longerons Life Limit; ECP-6303R1 FT50 18K Y577 Former Redesign; ECP-6304R1 FT50 18K Web and Wing Drag Longerons Redesign; ECP-6306R1 FT50 18K Y618 Inboard Former (74A342314) Redesign; ECP-6326 FT50 Fuel Barrier Web at Y510; ECP-6408C1 F/A-18 E/F FT50 Y233 Bulkhead Z90 Floor Attachment Retrofit; ECP-6411 F/A-18 E/F FT50 Inner-Wing Upper Splice Fitting @ Aft Fastener Skin on (30) This cost element includes the following ECPs related to Fatigue Tests (FTs) 76/77/78 for Wings: ECP-6243 FT76 Jackpoint Support Fitting Life Limit; ECP-6275C1 FT77 Wing Inboard Closure Rib Life Limit; ECP-6282 FT50/FT77 Post CRI Inner Wing Retrofit; ECP-6285C1: FT77 Lower Wing Skin Splice Fitting Life Limit; ECP-6292 FT76 Avionics Bay 3 & 4 Door Hinges; ECP-6295 FT77 Wing Spar 6 Life Limit; ECP-6309 FT77 Retrofit ECP for the Outer Wing; ECP-6341 FT77/78 Aileron Retrofit (31) This cost element includes the following ECPs related to the Main Landing Gear (MLG): ECP-6104 MLG Door Bushing Migration ECP-6194 MLG Trunnion Bearing Loose Retention Nut ECP-6196C1 MLG R/H Upper Planing Link Attach Fitting Failure (32) ECP-6394R1 AYC-1682 is a drain hole, and there is no cost for kits. (33) Prior year qty of 22 are OEM provided as in-warranty kits so do not have a cost. (34) Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts. (35) Installation of kits procured in FY17 and 18 will be funded via OSIP 13-19. Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts. (36) Future funding for this ECP has been realigned to OSIP 13-19 in FY19 for better visibility of PE efforts. (37) ECP 6504 requires installs only, kits are not required. (38) Installation kits N/R increase in FY18 is due the ECP 6480 Super Blues Design and Development along with \$14.600 added for PE IPT requirements. (39) Installation costs vary by FY due to different ECPs being installed. (40) Kits were provided as I/W. More installs due to I/W OOW installs Trades with Boeing and/or ATSUGI (41) Quantity of two kits installed in FY19 are validation kits which deliver and install prior to the recurring kits in FY20.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	508.998	79.852	125.887	126.224	0.000	126.224	154.743	190.357	208.455	211.785	1,890.637	3,496.938
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	508.998	79.852	125.887	126.224	0.000	126.224	154.743	190.357	208.455	211.785	1,890.637	3,496.938
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	508.998	79.852	125.887	126.224	0.000	126.224	154.743	190.357	208.455	211.785	1,890.637	3,496.938
(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 Operational, Safety and Improvement Program (OSIP) is required to retrofit upgrades, manage obsolescence issues, and improvements to various avionics systems that have been or are being incorporated into fleet aircraft, to provide updates to Automated Maintenance Environment (AME) and the integrated electronic technical manuals, and to provide mission planning updates. Specifically for mission planning, the F/A-18 Unique Planning Component (UPC) for the Joint Mission Planning System (JMPS) must implement frequent software changes in conjunction with aircraft modifications. The JMPS and Airborne Electronic Attack (AEA) UPC changes required in conjunction with System Configuration Set (SCS) changes must include software regression tests to ensure proper operation and integration with other aircraft systems in JMPS components, and the core mission planning equipment and software procured elsewhere within the Navy budget.												
Upgrades include replacement of the Hi-8mm video tape recorder with a retrofit of Solid State Recorder (SSR) (ECP-1146-12 and ECP-6212R1) into United States Navy and Marine Corps Lot 4-25 F/A-18A+/B/C/D/E/F aircraft. Installation of the Cockpit Video Recording System (CVRS) is a mandatory pre-requisite for the SSR upgrade for F/A-18C/D. This OSIP includes the retrofit completion of the CVRS in unmodified F/A-18C/D aircraft. Upgrades also include replacement of the black and white Heads Up Display (HUD) camera with a retrofit of a color HUD camera (ECP-6491) to address technology obsolescence and configuration differences introduced by the Joint Helmet Mounted Cueing System (JHMCS) in Lot 4-11 F/A-18A-D aircraft (Lot 7-9 F/A-18A++ will require wiring modification). Installation of the SSR for Lots 23-24 F/A-18E/F (ECP-6212R1) will be performed concurrent with the upgrade retrofit installation of the Type 2 Advanced Mission Computer (AMC) and the JHMCS in OSIP 24-00.												
This OSIP includes replacement of the AN/AVQ-36 Head-Up Display (HUD) and the entire Block 2 F/A-18E/F and EA-18G display suite (5x5 and 8x10 Advanced Multipurpose Displays (AMPD), Multipurpose Color Display Replacement (MPCDR), Up Front Control Display Replacement (UFCDR), and Engine Fuel Display Replacement (EFDR)) with the Advanced Cockpit System (ACS) into United States Navy Lot 26 and up F/A-18E/F and EA-18G aircraft to address technology obsolescence and increase display capability required for the Advanced Capability Mission Computer (ACMC). The ACS consists of a Low-Profile HUD (LPHUD), 10x19 Large Area Display (LAD) and Low-Profile Engine Fuel Display (LPEFD). This OSIP also includes replacement for the SSR/USSR with a High Speed Video Network (HSVN) Digital Video Recorder (HDVR) (ECP-TBD) into United States Navy Lot 23 and up F/A-18E/F and EA-18G aircraft to address technology obsolescence and include Cyber Security Information Assurance through Type-1 data encryption capability. HDVR is required for installation of the ACS. Upgrades also include the Digital Video Mapping Computer (DVMC) which will provide additional graphics processing required by the ACS. HDVR and DVMC retrofit is being planned for Organizational level installation with no Depot labor requirements.												
This OSIP also includes a requirement to retrofit the Deployable Flight Incident Recorder Set (DFIRS) (ECP-6273) to address component obsolescence including the search and rescue satellite aided tracking beacon. Upgrades include an F/A-18 retrofit installation of the AMC (ECP-6267R1) as a replacement for the AYK-14 computer. Upgrade includes Store Management Processor (SMP) AVC 5506 incorporation required to support ECP-6267R1. Upgrade includes a retrofit installation of the Advanced Capability Mission Computer (ACMC) (ECP-6459, ECP-6459C1) into EA-18G aircraft. Upgrades include a retrofit of the Fiber Channel Network Switch-24 (FCNS-24) (ECP-6456, ECP-6456C1) into EA-18G aircraft. Upgrades also include retrofit installation of various display hardware improvements to enable increased aircrew												

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
situational awareness such as replacement of the Multipurpose Color Display (MPCD) with MPCD Replacement (MPCDR) (ECP-6220, ECP-6220C2, and ECP-6220C3) to meet hardware requirement for OFP display improvements. Upgrades include retrofit of USMC F/A-18C/D aircraft with the ACMC, display upgrades including the left/right 5x5 advanced multi-purpose display, up-front control display-replacement, and MPCDR, stores management system upgrades, DTU and associated software and engineering requirements. Efforts include Upgrades of Type 2 and Type 3 Advanced Mission Computers (AMC) to meet increased OFP processing throughput requirements, including adding a 4th Processor Card to Type III AMC. The efforts will include integration of the hardware and the software as well as the Integrated Logistics Support (ILS) products. The procurement of SCS represents the collection of software and hardware modifications that form a single, integrated aircraft software operational load. The SCS builds anticipated are used to support retrofit hardware and software configuration changes and associated testing driven by the Aircraft Procurement, Navy 5 (APN-5) funded OSIPs. SCS integration will comprise of OFP, recurring and non-recurring engineering associated with planned incremental software releases, emergent and rapid fleet driven improvements and/or integration efforts, Naval Integrated Fire Control - Counter Air (NIFC-CA) required interoperability modifications, Link 16 Inject modifications, support equipment and simulation equipment test program sets updates, operational analysis and functional retrofit implementation of aircrew and maintenance training systems, OFP memory loader verifier set personal computer memory card international association cards, and update of SCS to allow single point loading of software from the advanced memory unit or digital memory device and associated software licenses and data rights and publication updates. This Operational, Safety and Improvement Program (OSIP) will cover F/A-18 A-D, E/F and EA-18G Automated Maintenance Environment (AME), which includes initial procurement of software licenses, data rights, and technical publication updates including Integrated Electronic Technical Manuals (IETMs). Modifications incorporated for AME integration are authorized via associated SCS software builds, SPAWAR Program Of Record (POR) Acquisition Decision Memorandums, and Engineering Change Proposals (ECPs). The miniaturized airborne Global Positioning System (GPS) receiver retrofit implements an advanced GPS that increases platform navigation accuracy and smart weapon targeting solutions. This OSIP will implement a Precision Approach and Landing Capability (PALC) that will provide an onboard precision approach capability in the event of adverse weather conditions. The PALC requirement can be met with either the Civilian Instrument Landing System (C-ILS) or the Wide Area Augmentation System (WAAS). Efforts include verifying and validating altimetry data related to the Reduced Vertical Separation Minimum (RVSM) mandate which reduces the vertical separation between aircraft flying between FL290 (29,000 ft.) and FL410 (41,000 ft.) inclusive, from 2000-ft minimum to 1000-ft minimum. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: All Validation and Verification installs for SSR (ECP-1146-12) have been completed. HDVR is planned to begin USN aircraft integration beginning FY 2019 concurrent with Block III Super Hornet production.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Capability and Reliability Improvements				Related RDT&E PEs:					
Financial Plan		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
(*) Indicates the modification is being installed organically and no installation funds are required.		Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (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													
1.1.1) ECP-6212R1 F/A-18E SSR - NonOrganic ⁽⁴²⁾ Installation 1 of 7		40 / 0.699	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 0.699
1.1.2) ECP-6212R1 F/A-18F SSR - NonOrganic ⁽⁴³⁾ Installation 1 of 7		56 / 1.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 1.101
1.1.3) ECP 1146-12 (SSR Hi8) AFC-630 Lot 12-21 C Kits - NonOrganic Installation 1 of 7		276 / 2.081	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	276 / 2.081
1.1.4) ECP 1146-12 (SSR Hi8) AFC-631 Lot 12-21 D Kits - NonOrganic Installation 1 of 7		115 / 1.693	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	115 / 1.693
1.1.5) ECP 1146-12 (SSR Hi8) AFC-633 Lot 18-22 E/F - NonOrganic Installation 1 of 7		32 / 0.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 0.308
1.1.6) Civilian ILS A-kits (ECP 6380) - NonOrganic Installation 2 of 7		159 / 12.882	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	159 / 12.882
1.1.7) Type 2 Advanced Mission Computer (AMC) kits (ECP 6267R1) - NonOrganic ⁽⁴⁴⁾ Installation 3 of 7		61 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	61 / 0.000
1.1.8) HDVR - Organic ^(*)		- / -	- / -	- / -	8 / 0.442	- / -	8 / 0.442	144 / 8.117	121 / 6.957	121 / 7.096	121 / 7.238	119 / 7.104	634 / 36.954
1.1.9) F/A-18E ACS - NonOrganic Installation 4 of 7		- / -	- / -	- / -	2 / 1.205	- / -	2 / 1.205	- / -	12 / 7.521	27 / 17.260	72 / 46.947	141 / 91.939	254 / 164.872
1.1.10) F/A-18F and EA-18G ACS - NonOrganic Installation 5 of 7		- / -	- / -	- / -	2 / 1.494	- / -	2 / 1.494	- / -	9 / 6.995	26 / 20.611	34 / 27.474	284 / 229.638	355 / 286.212
1.1.11) DFIRS - Organic ^(*)		- / -	- / -	- / -	50 / 2.856	- / -	50 / 2.856	90 / 5.295	45 / 2.745	45 / 2.790	90 / 5.580	89 / 5.617	409 / 24.883
1.1.12) A-Kits Archive - Organic ^(*)		395 / 7.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	395 / 7.470
1.1.13) Prior Year Install Costs - Organic ^(*)		391 / 0.301	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	391 / 0.301
1.2.1) Installation Kits N/R - Organic ^(*)		- / 24.241	- / 0.505	- / 3.516	- / 5.402	- / -	- / 5.402	- / 0.879	- / 0.072	- / -	- / -	- / -	- / 34.615
2.1.1) Stores Management Upgrade (SMUG) (ECP 6042) - NonOrganic ⁽⁴⁵⁾ Installation 6 of 7		59 / 1.878	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 1.878
2.1.2) F/A-18C/D Cockpit Video Recording System (CVRS) - NonOrganic Installation 7 of 7		17 / 0.219	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.219
2.1.3) Display Improvements (DVMC-104) - Organic ^(*)		- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 3.300	113 / 11.526	113 / 11.757	325 / 33.813	584 / 60.396

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G			Modification Type: Capability and Reliability Improvements					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.4) ECP 6459 Advanced Capability Mission Computer (ACMC) - Organic ^(*)	34 / 34.272	13 / 13.827	21 / 22.148	5 / 5.386	- / -	5 / 5.386	22 / 24.046	11 / 12.263	- / -	- / -	29 / 32.267	135 / 144.209	
2.1.5) ECP 6456 Fibre Channel Network Switch (FCNS-24) - Organic ^(*)	77 / 4.784	116 / 5.760	42 / 2.562	56 / 3.482	- / -	56 / 3.482	43 / 2.720	- / -	- / -	- / -	- / -	334 / 19.308	
2.1.6) Type 3 Mission Computer 4th Processor - Organic ^(*)	- / -	- / -	- / -	342 / 11.543	- / -	342 / 11.543	100 / 3.443	343 / 12.395	261 / 9.348	6 / 0.219	- / -	1,052 / 36.948	
2.1.7) PALC B-Kits - Organic ^(*)	- / -	- / -	32 / 1.628	60 / 3.060	- / -	60 / 3.060	60 / 3.090	60 / 3.120	60 / 3.182	60 / 3.236	274 / 15.070	606 / 32.386	
2.1.8) SCS - Organic ^(*)	- / 29.042	- / 2.698	- / 4.514	- / 5.080	- / -	- / 5.080	- / 2.500	- / 4.960	- / 6.282	- / 6.131	- / 963.623	- / 1,024.830	
2.1.9) AME - Organic ^(*)	- / -	- / -	- / 36.847	- / 21.613	- / -	- / 21.613	- / 21.714	- / 38.822	- / 33.571	- / 16.179	- / 28.179	- / 196.925	
2.1.10) MP/UPC Software - Organic ^(*)	- / 23.587	- / 3.865	- / 2.876	- / 5.549	- / -	- / 5.549	- / 5.202	- / 5.000	- / 5.020	- / 5.020	- / 129.566	- / 185.685	
2.1.11) H12 (SCS) - Organic ^(*)	- / 15.356	- / 0.064	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.420	
2.1.12) H14 (SCS) - Organic ^(*)	- / 6.055	- / 4.065	- / 1.935	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.055	
2.1.13) H16 (SCS) - Organic ^(*)	- / 13.949	- / 6.754	- / 4.617	- / 5.723	- / -	- / 5.723	- / 5.841	- / 5.766	- / 6.189	- / 6.289	- / -	- / 55.128	
2.1.14) H18 (SCS) - Organic ^(*)	- / -	- / -	- / 2.766	- / 4.000	- / -	- / 4.000	- / 8.950	- / 11.000	- / 13.000	- / 12.000	- / 2.000	- / 53.716	
2.1.15) H20 (SCS) - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.698	- / 13.152	- / 13.603	- / 12.303	- / 4.397	- / 52.153	
2.1.16) H22 (SCS) - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.741	- / 8.651	- / 9.006	- / 60.000	- / 85.398	
2.1.17) ALQ-214 JMPS UPC - Organic ^(*)	- / 18.706	- / 2.601	- / 2.382	- / 5.000	- / -	- / 5.000	- / 4.100	- / -	- / -	- / -	- / -	- / 32.789	
2.1.18) B-Kits Archive - Organic ^(*)	913 / 137.220	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	913 / 137.220	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 25.633	- / 9.895	- / 3.943	- / 7.141	- / -	- / 7.141	- / 12.654	- / 11.164	- / 8.222	- / 4.548	- / -	- / 83.200	
Subtotal: Procurement	- / 361.477	- / 50.034	- / 89.734	- / 88.976	- / -	- / 88.976	- / 117.249	- / 152.973	- / 166.351	- / 173.927	- / 1,603.213	- / 2,803.934	
Support													
3.1) Engineering Change Orders	- / 1.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.440	
3.2) Data ⁽⁴⁶⁾	- / 8.394	- / 0.246	- / 8.044	- / 9.697	- / -	- / 9.697	- / 9.872	- / 10.050	- / 10.231	- / 1.000	- / 25.863	- / 83.397	
3.3) Training Equipment	- / 1.904	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.904	
3.4) Support Equipment	- / 6.361	- / 2.272	- / 0.785	- / 0.760	- / -	- / 0.760	- / 0.800	- / 0.800	- / 0.800	- / -	- / 8.000	- / 20.578	
3.5) ILS	- / 15.558	- / 1.832	- / 1.982	- / 2.017	- / -	- / 2.017	- / 2.054	- / 2.091	- / 2.130	- / 1.177	- / 10.625	- / 39.466	
3.6) Other Support ⁽⁴⁷⁾	- / 104.289	- / 22.146	- / 23.098	- / 23.587	- / -	- / 23.587	- / 24.011	- / 24.443	- / 24.881	- / 25.330	- / 135.129	- / 406.914	
Subtotal: Support	- / 137.946	- / 26.496	- / 33.909	- / 36.061	- / -	- / 36.061	- / 36.737	- / 37.384	- / 38.042	- / 27.507	- / 179.617	- / 553.699	
Installation													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Capability and Reliability Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 1 of 7: GRP: SSR Mod Installs	- / 1.127	- / 0.208	- / 0.078	- / 0.005	- / 0.000	- / 0.005	- / 0.004	- / -	- / -	- / -	- / 0.000	- / 1.422	
Installation 2 of 7: Civilian ILS A-kits (ECP 6380)	- / 3.460	- / 0.909	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.369	
Installation 3 of 7: Type 2 Advanced Mission Computer (AMC) kits (ECP 6267R1)	- / 4.743	- / 2.117	- / 2.156	- / 1.182	- / 0.000	- / 1.182	- / -	- / -	- / -	- / -	- / 0.000	- / 10.198	
Installation 4 of 7: F/A-18E ACS	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.345	- / -	- / 2.152	- / 4.939	- / 38.964	- / 46.400	
Installation 5 of 7: F/A-18F and EA-18G ACS	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.408	- / -	- / 1.910	- / 5.412	- / 68.843	- / 76.573	
Installation 6 of 7: Stores Management Upgrade (SMUG) (ECP 6042)	- / 0.020	- / 0.013	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.043	
Installation 7 of 7: F/A-18C/D Cockpit Video Recording System (CVRS)	- / 0.225	- / 0.075	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.300	
Subtotal: Installation	- / 9.575	- / 3.322	- / 2.244	- / 1.187	- / -	- / 1.187	- / 0.757	- / -	- / 4.062	- / 10.351	- / 107.807	- / 139.305	
Total													
Total Cost (Procurement + Support + Installation)	508.998	79.852	125.887	126.224	0.000	126.224	154.743	190.357	208.455	211.785	1,890.637	3,496.938	

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ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 7: GRP: SSR Mod Installs																															
Manufacturer Information																															
Manufacturer Name: Various - SSR Mod Installs															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 31																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field mod Team:: Installation Name: SSR Mod Installs																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		453 / 1.127		41 / 0.208		16 / 0.078		5 / 0.005		0 / 0.000		5 / 0.005		4 / 0.004		- / -		- / -		- / -		0 / 0.000		519 / 1.422							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		453 / 1.127		41 / 0.208		16 / 0.078		5 / 0.005		0 / 0.000		5 / 0.005		4 / 0.004		- / -		- / -		- / -		0 / 0.000		519 / 1.422							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	453	12	10	9	10	9	3	2	2	2	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-		
Out	453	12	10	9	10	9	3	2	2	2	1	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 7: Civilian ILS A-kits (ECP 6380)																															
Manufacturer Information																															
Manufacturer Name: Boeing - Civilian ILS															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: Civilian ILS A-kits (ECP 6380)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		132 / 3.460		27 / 0.909		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		159 / 4.369					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		132 / 3.460		27 / 0.909		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		159 / 4.369					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	132	5	5	8	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	159
Out	132	5	5	8	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	159

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 7: Type 2 Advanced Mission Computer (AMC) kits (ECP 6267R1)																															
Manufacturer Information																															
Manufacturer Name: N/A - Type 2 Advanced Mission Computer (AMC) kits															Manufacturer Location: N/A																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: Type 2 Advanced Mission Computer (AMC) kits (ECP 6																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		28 / 4.743		13 / 2.117		13 / 2.156		7 / 1.182		0 / 0.000		7 / 1.182		- / -		- / -		- / -		- / -		0 / 0.000		61 / 10.198							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		28 / 4.743		13 / 2.117		13 / 2.156		7 / 1.182		0 / 0.000		7 / 1.182		- / -		- / -		- / -		- / -		0 / 0.000		61 / 10.198							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	28	4	3	3	3	4	3	3	3	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	28	4	3	3	3	4	3	3	3	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 7: F/A-18E ACS																															
Manufacturer Information																															
Manufacturer Name: Boeing - F/A-18E ACS															Manufacturer Location: St Louis																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020								Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Sep 2020								Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Navy Drive In Modification:: Installation Name: F/A-18E ACS																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.345		- / -		- / -		- / -		0 / 0.000		2 / 0.345					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.152		- / -		0 / 0.000		12 / 2.152					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		27 / 4.939		0 / 0.000		27 / 4.939					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		72 / 13.176		72 / 13.176					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		141 / 25.788		141 / 25.788					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.345		- / -		12 / 2.152		27 / 4.939		213 / 38.964		254 / 46.400					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	3	3	3	3	6	7	7	7	213	254
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	3	3	3	3	6	7	7	7	213	254

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 7: F/A-18F and EA-18G ACS																															
Manufacturer Information																															
Manufacturer Name: Boeing - F/A-18F and EA-18G ACS															Manufacturer Location: St Louis																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020								Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Sep 2020								Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Navy Drive In Modification:: Installation Name: F/A-18F and EA-18G ACS																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.408		- / -		- / -		- / -		0 / 0.000		2 / 0.408					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 1.910		- / -		0 / 0.000		9 / 1.910					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		26 / 5.412		0 / 0.000		26 / 5.412					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		34 / 7.344		34 / 7.344					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		284 / 61.499		284 / 61.499					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.408		- / -		9 / 1.910		26 / 5.412		318 / 68.843		355 / 76.573					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	3	2	2	2	6	6	7	7	318	355
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	3	2	2	2	6	6	7	7	318	355

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 7: Stores Management Upgrade (SMUG) (ECP 6042)																															
Manufacturer Information																															
Manufacturer Name: General Electric (SMUG ECP 6042)															Manufacturer Location: Grand Rapids, MI																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Drive-In Modification:: Installation Name: Stores Management Upgrade (SMUG) (ECP 6042)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		30 / 0.020		18 / 0.013		11 / 0.010		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		59 / 0.043					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		30 / 0.020		18 / 0.013		11 / 0.010		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		59 / 0.043					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	30	4	4	5	5	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59
Out	30	4	4	5	5	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 7: F/A-18C/D Cockpit Video Recording System (CVRS)																															
Manufacturer Information																															
Manufacturer Name: Boeing - F/A-18C/D Cockpit Video Recording System (CVRS)															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: F/A-18C/D Cockpit Video Recording System (CVRS)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		13 / 0.225		4 / 0.075		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		17 / 0.300					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		13 / 0.225		4 / 0.075		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		17 / 0.300					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Out	13	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Footnotes: ⁽⁴²⁾ ECP-6212R1 installs were realigned to match concurrent install schedule with Type 2 AMC (ECP-6267R1). ECP-6212R1 (AFC-557) applies to E/F Lots 23-25, and is dependent upon Type II Mission Computer prerequisite install from ECP-6267R1 (AFC-507 Lot 25 and AFC-506 Lot 23-24). AFC-507 is complete for E/F. AFC-506 has experienced significant delays due to the complexity of the aircraft																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 10 / Core Avionics Improvements / Upgrades (OSIP 023-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
modification. AFC-557 val/ver activity closed in FY14 enabling issuance of the technical directive to begin installs in Lot 25E/F. AFC-506 was released in FY15 for Lot 23-24 E/F and installs have been scheduled to coincide with AFC-557. (43) ECP-6212R1 installs were realigned to match concurrent install schedule with Type 2 AMC (ECP-6267R1). ECP-6212R1 (AFC-557) applies to E/F Lots 23-25, and is dependent upon Type II Mission Computer prerequisite install from ECP-6267R1 (AFC-507 Lot 25 and AFC-506 Lot 23-24). AFC-507 is complete for E/F. AFC-506 has experienced significant delays due to the complexity of the aircraft modification. AFC-557 val/ver activity closed in FY14 enabling issuance of the technical directive to begin installs in Lot 25E/F. AFC-506 was released in FY15 for Lot 23-24 E/F and installs have been scheduled to coincide with AFC-557. (44) Type 2 AMC A-kits were procured under BLI 05770 and are being installed under BLI 05250. Type 2 AMC B-kits have been removed from aircraft and replaced with Type 3 AMC kits, so there is no cost for B-kits. The B-kits are O-level installs so there is no associated install cost or schedule for B-kits. (45) Kits were procured as a Life of Type Buy in FY14. (46) Cost element increase beginning with FY19 execution due to the realignment of OSIP 18-14 requirements to OSIP 23-04. Technical publications data and IETMS modifications driven by AME and SCS software upgrades will be reflected in this OSIP. ECP driven technical data changes will be annotated per specific OSIPs. (47) Cost element increase beginning with FY19 execution due to the realignment of OSIP 18-14 requirements to OSIP 23-04.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 11 / Litening AT Targeting Pod (OSIP 024-04)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	163.676	1.285	1.295	0.630	0.000	0.630	0.637	0.315	0.000	0.000	0.000	167.838
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	163.676	1.285	1.295	0.630	0.000	0.630	0.637	0.315	0.000	0.000	0.000	167.838
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	163.676	1.285	1.295	0.630	0.000	0.630	0.637	0.315	0.000	0.000	0.000	167.838
<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 LITENING Advanced Targeting (AT) Pod (AN-AAQ-28) possesses qualities essential to the Marine Corps' F/A-18A+/C/D's in the execution of operations within the combat spectrum providing the Marine Air Ground Task Force with crucial capabilities in the expeditionary land based environment. LITENING AT Pod capabilities include: laser/Infrared (IR) marker functionality, image data link functionality, cooperative laser guided illumination, laser spot tracker, and limited weapons damage assessment capability. Northrop Grumman's LITENING pod has demonstrated improved reliability and maintainability during combat operation. This OSIP provides ongoing integration improvements to LITENING pod systems in support of evolving operational requirements. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: LITENING is a commercial off the shelf non-developmental item. This Operational, Safety and Improvement Program (OSIP) funds hardware for modifications to include personal computer memory card international association cards, station four adapters, wiring kits, loaders, etc. as well as desired software enhancements to take advantage of new capabilities. LITENING kits for F/A-18D (lots 14 and up) were procured in prior years and have reconnaissance wiring. LITENING kits for F/A-18D (lots 12 and 13) are engineered for aircraft without reconnaissance wiring and were procured in FY13.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 11 / Litening AT Targeting Pod (OSIP 024-04)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A+/C/D				Modification Type: CAPABILITY IMPROVEMENTS				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years Qty (Each) / Total Cost (\$ M)	FY 2018 Qty (Each) / Total Cost (\$ M)	FY 2019 Qty (Each) / Total Cost (\$ M)	FY 2020 Base Qty (Each) / Total Cost (\$ M)	FY 2020 OCO Qty (Each) / Total Cost (\$ M)	FY 2020 Total Qty (Each) / Total Cost (\$ M)	FY 2021 Qty (Each) / Total Cost (\$ M)	FY 2022 Qty (Each) / Total Cost (\$ M)	FY 2023 Qty (Each) / Total Cost (\$ M)	FY 2024 Qty (Each) / Total Cost (\$ M)	To Complete Qty (Each) / Total Cost (\$ M)	Total Qty (Each) / Total Cost (\$ M)	
Procurement													
1.1.1) F/A-18C A-kits - NonOrganic ⁽⁴⁸⁾ <i>Installation 1 of 2</i>	95 / 2.912	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	95 / 2.912	
1.1.2) F/A-18D A-Kits - NonOrganic <i>Installation 2 of 2</i>	25 / 1.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 1.013	
1.1.3) A-kits Archive - Organic ^(*)	87 / 3.191	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	87 / 3.191	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 1.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.225	
2.1.1) B-kits Archive - Organic ^(*)	64 / 120.716	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	64 / 120.716	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 6.216	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.216	
<i>Subtotal: Procurement</i>	- / 135.273	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 135.273	
Support													
3.1) Engineering Change Orders	- / 10.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.025	
3.2) Data	- / 2.853	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.853	
3.3) Training Equipment	- / 0.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.289	
3.4) Support Equipment	- / 0.484	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.484	
3.5) ILS	- / 2.448	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.448	
3.6) Other Support ⁽⁴⁹⁾	- / 11.727	- / 0.677	- / 0.691	- / 0.350	- / -	- / 0.350	- / 0.357	- / 0.175	- / -	- / -	- / -	- / 13.977	
<i>Subtotal: Support</i>	- / 27.826	- / 0.677	- / 0.691	- / 0.350	- / -	- / 0.350	- / 0.357	- / 0.175	- / -	- / -	- / 0.000	- / 30.076	
Installation													
<i>Installation 1 of 2:</i> F/A-18C A-kits	- / 0.212	- / 0.284	- / 0.280	- / 0.280	- / 0.000	- / 0.280	- / 0.280	- / 0.140	- / -	- / -	- / 0.000	- / 1.476	
<i>Installation 2 of 2:</i> F/A-18D A-Kits	- / 0.365	- / 0.324	- / 0.324	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.013	
<i>Subtotal: Installation</i>	- / 0.577	- / 0.608	- / 0.604	- / 0.280	- / -	- / 0.280	- / 0.280	- / 0.140	- / -	- / -	- / 0.000	- / 2.489	
Total													
Total Cost (Procurement + Support + Installation)	163.676	1.285	1.295	0.630	0.000	0.630	0.637	0.315	0.000	0.000	0.000	167.838	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 11 / Litening AT Targeting Pod (OSIP 024-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: F/A-18C A-kits																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman - F/A-18C A-kits															Manufacturer Location: Shamburg, IL																
Administrative Leadtime (<i>in Months</i>): 9															Production Leadtime (<i>in Months</i>): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: F/A-18C A-kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		14 / 0.212		16 / 0.284		20 / 0.280		20 / 0.280		0 / 0.000		20 / 0.280		20 / 0.280		5 / 0.140		- / -		- / -		0 / 0.000		95 / 1.476							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		14 / 0.212		16 / 0.284		20 / 0.280		20 / 0.280		0 / 0.000		20 / 0.280		20 / 0.280		5 / 0.140		- / -		- / -		0 / 0.000		95 / 1.476							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	2	1	1	1	-	-	-	-	-	-	-	-		
Out	14	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	2	1	1	1	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 11 / Litening AT Targeting Pod (OSIP 024-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: F/A-18D A-Kits																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman - F/A-18D A-kits															Manufacturer Location: Shamburg, IL																
Administrative Leadtime <i>(in Months)</i> : 12															Production Leadtime <i>(in Months)</i> : 25																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: F/A-18D A-Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		9 / 0.365		8 / 0.324		8 / 0.324		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		25 / 1.013					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		9 / 0.365		8 / 0.324		8 / 0.324		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		25 / 1.013					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	2	-	1	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Out	9	5	2	-	1	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25
Footnotes: ⁽⁴⁸⁾ Installs are aligned to the schedule provided by CNAF, to be completed with kits already procured. The kits were originally intended to be installed in FY15 and FY16. ⁽⁴⁹⁾ Other Support costs are required for ongoing installs within this OSIP.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,161.907	77.474	160.135	148.981	0.000	148.981	82.093	63.026	142.941	145.801	3.799	1,986.157
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,161.907	77.474	160.135	148.981	0.000	148.981	82.093	63.026	142.941	145.801	3.799	1,986.157
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,161.907	77.474	160.135	148.981	0.000	148.981	82.093	63.026	142.941	145.801	3.799	1,986.157
<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 F/A-18E/F and EA-18G program has developed and integrated the APG-79 Active Electronically Scanned Array (AESA) radar system for installation in Lot 26 and subsequent Block II, Super Hornet and Growler aircraft. The integration of the APG-79 AESA radar system into the F/A-18E /F and EA-18G greatly improves the weapon system's threat detection range, high resolution synthetic aperture radar ground mapping and targeting capability, aircraft survivability and situational awareness. APG-79 AESA Radar Producibility Enhancement (ECP 6279) is an umbrella ECP and is comprised of Electro Magnetic Interference Upgrades (ECP 6298), Waveform Generator Firmware Upgrade (ECP 6329), and Power Conditioning Unit Upgrade to -120 (ECP 6314). The Configuration D upgrade includes the following ECPs: General Purpose Processor (GPP)3 (ECP 6381); 5th and 6th Channel (ECP 6344); Waveform Generator (ECP 6346), Waveform Generator- R2 Firmware (ECP 6346R2), and General Purpose Processor (GPP)3 General Purpose Controller (GPC) (ECP 6381). Corrections, modifications, and upgrades to Radar software is supported in compliance with system configuration set (SCS) builds. This Operational, Safety and Improvement Program (OSIP) also includes recurring and non-recurring efforts for reliability and operational safety improvements to, as well as obsolescence mitigation for, the APG-65 and APG-73 radars. These efforts include retrofit incorporation of APG-73 into F/A-18 A+C/D- AFC 585 Kits (ECP 620). Funding included for Sensor Hardware Encapsulation Layer Narrow Band Converter Module Firmware (SNBC FW). DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: AVIONICS UPGRADE				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Radome (ECP-6038) - NonOrganic Installation 1 of 2	131 / 37.494	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	131 / 37.494	
1.1.2) ECP 620 Kits - NonOrganic Installation 1 of 2	30 / 0.734	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 0.734	
2.1.1) Modules Kits (WRAs) (ECP-6279) - NonOrganic ⁽⁵⁰⁾ Installation 1 of 2	167 / 69.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	167 / 69.660	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 6.203	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.203	
2.1.2) GPP3 (ECP 6381) - Organic ^(*)	386 / 82.918	75 / 14.325	228 / 43.548	29 / 10.150	- / -	29 / 10.150	- / -	- / -	- / -	- / -	- / -	718 / 150.941	
2.1.3) 5th and 6th Channel (ECP 6344) - NonOrganic Installation 2 of 2	386 / 56.725	75 / 14.325	12 / 1.020	226 / 33.200	- / -	226 / 33.200	19 / 3.876	- / -	- / -	- / -	- / -	718 / 109.146	
2.1.4) Waveform Generator HW (ECP 6346) - Organic ^(*)	386 / 34.721	75 / 7.300	228 / 31.692	6 / 4.865	- / -	6 / 4.865	- / -	- / -	- / -	- / -	- / -	695 / 78.578	
2.1.5) Waveform Generator FW (ECP 6346) - Organic ^(*)	- / -	95 / 1.140	50 / 0.610	45 / 0.540	- / -	45 / 0.540	15 / 0.180	- / -	- / -	- / -	- / -	205 / 2.470	
2.1.6) APG-65/73 obsolescence - Organic ^(*) ⁽⁵¹⁾	- / 2.461	- / 4.584	- / 19.668	- / 25.785	- / -	- / 25.785	- / 5.500	- / 5.869	- / 21.060	- / 21.053	- / -	- / 105.980	
2.1.7) APG-79 obsolescence - Organic ^(*) ⁽⁵²⁾	- / 4.399	- / 0.878	- / 12.728	- / 12.679	- / -	- / 12.679	- / 15.437	- / 12.327	- / 21.744	- / 21.744	- / -	- / 101.936	
2.1.8) SNBC FW - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.806	- / 19.399	- / -	- / 36.205	
2.1.9) B-Kits Archive - Organic ^(*)	260 / 457.388	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	260 / 457.388	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 238.760	- / 8.116	- / 18.152	- / 20.546	- / -	- / 20.546	- / 18.472	- / 12.291	- / 34.995	- / 34.995	- / -	- / 386.327	
Subtotal: Procurement	- / 991.463	- / 50.668	- / 127.418	- / 107.765	- / -	- / 107.765	- / 43.465	- / 30.487	- / 94.605	- / 97.191	- / 0.000	- / 1,543.062	
Support													
3.1) Engineering Change Orders	- / 34.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.268	
3.2) Software - Legacy Radar Software Upgrades ⁽⁵³⁾	- / 14.399	- / 4.500	- / 3.463	- / 8.972	- / -	- / 8.972	- / 4.349	- / 7.953	- / 12.537	- / 12.537	- / 0.223	- / 68.933	
3.3) Software - AESA Short Range Improvement S/W Upgrade ⁽⁵⁴⁾	- / 18.106	- / 4.700	- / 4.802	- / 11.877	- / -	- / 11.877	- / 9.781	- / 8.550	- / 15.310	- / 15.310	- / 0.625	- / 89.061	
3.4) Data	- / 1.534	- / 0.250	- / 0.250	- / 0.250	- / -	- / 0.250	- / 0.250	- / 0.255	- / 0.255	- / 0.255	- / -	- / 3.299	
3.6) Support Equipment	- / 14.078	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.000	- / 5.000	- / -	- / 24.078	
3.7) ILS	- / 7.595	- / 0.246	- / 0.250	- / 0.255	- / -	- / 0.255	- / 0.259	- / 0.264	- / 0.269	- / 0.274	- / 2.951	- / 12.363	
3.8) Other Support	- / 71.486	- / 13.688	- / 13.934	- / 14.185	- / -	- / 14.185	- / 14.440	- / 14.700	- / 14.965	- / 15.234	- / -	- / 172.632	
Subtotal: Support	- / 161.466	- / 23.384	- / 22.699	- / 35.539	- / -	- / 35.539	- / 29.079	- / 31.722	- / 48.336	- / 48.610	- / 3.799	- / 404.634	
Installation													
Installation 1 of 2: GRP: Prior Year Installs	- / 8.717	- / 3.422	- / 0.455	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 12.594	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G			Modification Type: AVIONICS UPGRADE					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Installation 2 of 2: 5th and 6th Channel (ECP 6344)	- / 0.261	- / -	- / 9.563	- / 5.677	- / 0.000	- / 5.677	- / 9.549	- / 0.817	- / -	- / -	- / 0.000	- / 25.867
Subtotal: Installation	- / 8.978	- / 3.422	- / 10.018	- / 5.677	- / -	- / 5.677	- / 9.549	- / 0.817	- / -	- / -	- / 0.000	- / 38.461
Total												
Total Cost (Procurement + Support + Installation)	1,161.907	77.474	160.135	148.981	0.000	148.981	82.093	63.026	142.941	145.801	3.799	1,986.157

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: GRP: Prior Year Installs																															
Manufacturer Information																															
Manufacturer Name: Multi															Manufacturer Location: Multi																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Various:: Installation Name: Prior Year Installs																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		262 / 8.717		53 / 3.422		13 / 0.455		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		328 / 12.594					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		262 / 8.717		53 / 3.422		13 / 0.455		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		328 / 12.594					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	262	9	15	14	15	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328
Out	262	9	15	14	15	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: 5th and 6th Channel (ECP 6344)																															
Manufacturer Information																															
Manufacturer Name: Raytheon - ECP 6344															Manufacturer Location: El Segundo, CA																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021																	
Delivery Dates		Sep 2018				Sep 2019				Sep 2020				Sep 2021																	
Installation Information																															
Method of Implementation: FRC:: Installation Name: 5th and 6th Channel (ECP 6344)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		16 / 0.261		- / -		206 / 6.505		164 / 5.179		0 / 0.000		164 / 5.179		- / -		- / -		- / -		- / -		0 / 0.000		386 / 11.945							
FY 2018		- / -		- / -		75 / 3.058		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		75 / 3.058							
FY 2019		- / -		- / -		- / -		12 / 0.498		0 / 0.000		12 / 0.498		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.498							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		226 / 9.549		- / -		- / -		- / -		0 / 0.000		226 / 9.549							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		19 / 0.817		- / -		- / -		0 / 0.000		19 / 0.817							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		16 / 0.261		- / -		281 / 9.563		176 / 5.677		0 / 0.000		176 / 5.677		226 / 9.549		19 / 0.817		- / -		- / -		0 / 0.000		718 / 25.867							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	64	71	73	73	54	54	54	14	56	56	57	57	5	5	5	4	-	-	-	-	-	-	-	-	-	718
Out	16	-	-	-	-	64	71	73	73	54	54	54	14	56	56	57	57	5	5	5	4	-	-	-	-	-	-	-	-	-	718
Footnotes: ⁽⁵⁰⁾ ECP 6279 installs are dependent upon squadron availability. ⁽⁵¹⁾ Costs for obsolescence kits vary because obsolescence issues are not an ongoing effort for a single item and are not subject to inflation driven increases. The requirement for obsolescence kits was determined by evaluating historic life of type buy costs for analogous systems. These costs were projected to support future obsolescence issues in the affected components.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 12 / AESA/AN-APG-65/AN-APG-73 (OSIP 002-07)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(52) Costs for obsolescence kits vary because obsolescence issues are not an ongoing effort for a single item and are not subject to inflation driven increases. The requirement for obsolescence kits was determined by evaluating historic life of type buy costs for analogous systems. These costs were projected to support future obsolescence issues in the affected components. (53) There are no quantities associated with software modifications. (54) There are no quantities associated with software modifications.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 13 / EW Unique (OSIP 021-08)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	197.902	105.650	41.302	28.797	0.000	28.797	30.353	31.660	34.797	35.493	80.018	585.972
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	197.902	105.650	41.302	28.797	0.000	28.797	30.353	31.660	34.797	35.493	80.018	585.972
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	197.902	105.650	41.302	28.797	0.000	28.797	30.353	31.660	34.797	35.493	80.018	585.972
(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:

Purchase additional ALR-67(V)3 Radar Warning Receiver (RWR) systems and ALQ-214(V)4/5 self-protection onboard jammer systems to be used to retrofit F/A-18C/D/E/F platforms. These systems will replace existing ALR-67(V)2 RWR and ALQ-126B or ALQ-165 jammer systems. This will significantly increase aircrew survivability in the legacy F/A-18. The repetitive obsolescence issues of the V(2), ALQ-165, and ALQ-126B systems is a consistent issue in the F/A-18 community. The RWR ALR-67(V)3 is the threat recognition providing situational awareness for the aircrew and is vital to their own safety as well as providing the opportunity to support the ground troops. The jammer ALQ-214 provides incremental, significant improvement in survivability against RF threats. These retrofits reduce the risk of lost aircraft and aircrew in a hostile environment, improves close air support, and reduces the risk of blue on blue fratricide. The Operational, Safety and Improvement Program (OSIP) also performs required safety of flight modifications, addresses obsolescence issues and incorporates system improvements for all electronic warfare unique requirements to include hardware and software modifications. Current ECPs include ECP 622 (ALR-67(V)3), ECP 6389 (ALQ-214(V)4/5) Software and IETMs updates are also required as a result of these modifications. ALR-67(V)3 and ALQ-214(V)4/5 kit procurements are required for aircraft installation.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ALR-67V(3) development and integration efforts started in FY10 and delivery and installs of A-kits began in FY14 and will continue through FY20 on the ALR-67(V)3 and FY24 on the ALQ-214.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 13 / EW Unique (OSIP 021-08)			
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F/A-18C/D/E/F ALR-67(V)3 Retrofit				Modification Type: Capability Improvements				Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) ALR 67(V)3 (ECP 622) -- OCO - NonOrganic ⁽⁵⁵⁾ Installation 1 of 2	100 / 4.123	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 4.123
1.1.2) ALR 67(V)3 (ECP 622) - NonOrganic Installation 2 of 2	24 / 5.640	10 / 4.490	34 / 15.280	5 / 2.292	- / -	5 / 2.292	5 / 2.338	5 / 2.385	5 / 2.432	5 / 2.481	- / -	93 / 37.338
1.1.3) ECP 6389 (ALQ-214) - Organic ^(*)	5 / 0.000	18 / 31.737	7 / 14.952	8 / 16.048	- / -	8 / 16.048	7 / 15.029	9 / 18.513	7 / 17.017	7 / 17.017	7 / 17.357	75 / 147.670
1.1.4) A-Kits Archive - Organic ^(*)	95 / 3.745	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	95 / 3.745
1.2.1) Installation Kits N/R - Organic ^(*)	- / 2.792	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.792
2.1.1) B-Kits Archive - Organic ^(*)	521 / 127.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	521 / 127.294
2.2.1) F/A-18C/D ALR-67(V)3 Systems - Organic ^(*)	- / -	34 / 16.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 16.000
2.2.2) Installation Equipment N/R - Organic ^(*)	- / 12.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.190
2.2.3) F/A-C/D ALQ-214 (V) 5 Systems - Organic ^(*)	- / -	- / 32.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 32.550
Subtotal: Procurement	- / 155.784	- / 84.777	- / 30.232	- / 18.340	- / -	- / 18.340	- / 17.367	- / 20.898	- / 19.449	- / 19.498	- / 17.357	- / 383.702
Support												
3.2) Software - ALR-67(V)3 system S/W upgrade	- / 22.475	- / 8.077	- / 1.981	- / 0.986	- / -	- / 0.986	- / 3.998	- / 1.594	- / 5.996	- / 6.457	- / -	- / 51.564
3.3) Data	- / 1.045	- / 1.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.045
3.4) Training Equipment	- / 0.276	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.276
3.5) Support Equipment	- / 7.321	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.321
3.6) ILS	- / 2.757	- / 0.500	- / 0.510	- / 0.520	- / -	- / 0.520	- / 0.531	- / 0.541	- / 0.552	- / 0.563	- / 2.815	- / 9.289
3.7) Other Support	- / 7.021	- / 7.911	- / 8.069	- / 8.231	- / -	- / 8.231	- / 8.380	- / 8.549	- / 8.720	- / 8.894	- / 59.771	- / 125.546
Subtotal: Support	- / 40.895	- / 19.488	- / 10.560	- / 9.737	- / -	- / 9.737	- / 12.909	- / 10.684	- / 15.268	- / 15.914	- / 62.586	- / 198.041
Installation												
Installation 1 of 2: ALR 67(V)3 (ECP 622) -- OCO	- / 1.223	- / 1.025	- / 0.360	- / 0.210	- / 0.000	- / 0.210	- / -	- / -	- / -	- / -	- / 0.000	- / 2.818
Installation 2 of 2: ALR 67(V)3 (ECP 622)	- / -	- / 0.360	- / 0.150	- / 0.510	- / 0.000	- / 0.510	- / 0.077	- / 0.078	- / 0.080	- / 0.081	- / 0.075	- / 1.411
Subtotal: Installation	- / 1.223	- / 1.385	- / 0.510	- / 0.720	- / -	- / 0.720	- / 0.077	- / 0.078	- / 0.080	- / 0.081	- / 0.075	- / 4.229
Total												
Total Cost (Procurement + Support + Installation)	197.902	105.650	41.302	28.797	0.000	28.797	30.353	31.660	34.797	35.493	80.018	585.972

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 13 / EW Unique (OSIP 021-08)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: ALR 67(V)3 (ECP 622) -- OCO																															
Manufacturer Information																															
Manufacturer Name: Raytheon - ALR-67(V)3 (ECP 622) - OCO															Manufacturer Location: Forrest, MS																
Administrative Leadtime <i>(in Months)</i> : 9															Production Leadtime <i>(in Months)</i> : 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ALR 67(V)3 (ECP 622) -- OCO																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		19 / 1.223		48 / 1.025		24 / 0.360		9 / 0.210		0 / 0.000		9 / 0.210		- / -		- / -		- / -		- / -		- / -		0 / 0.000		100 / 2.818					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		19 / 1.223		48 / 1.025		24 / 0.360		9 / 0.210		0 / 0.000		9 / 0.210		- / -		- / -		- / -		- / -		- / -		0 / 0.000		100 / 2.818					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	19	12	12	12	12	6	6	6	6	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100
Out	19	12	12	12	12	6	6	6	6	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 13 / EW Unique (OSIP 021-08)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 2 of 2: ALR 67(V)3 (ECP 622)																															
Manufacturer Information																															
Manufacturer Name: Raytheon - ALR-67(V)3 (ECP 622)										Manufacturer Location: Forrest, MS																					
Administrative Leadtime <i>(in Months)</i> : 9										Production Leadtime <i>(in Months)</i> : 9																					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates	Jul 2018	Jul 2019	Jul 2020	Jul 2021	Jul 2022	Jul 2023	Jul 2024																								
Delivery Dates	Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025																								
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ALR 67(V)3 (ECP 622)																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																			
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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	- / -	24 / 0.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	24 / 0.360																			
FY 2018	- / -	- / -	10 / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	10 / 0.150																			
FY 2019	- / -	- / -	- / -	34 / 0.510	0 / 0.000	34 / 0.510	- / -	- / -	- / -	- / -	0 / 0.000	34 / 0.510																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.077	- / -	- / -	- / -	0 / 0.000	5 / 0.077																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.078	- / -	- / -	0 / 0.000	5 / 0.078																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.080	- / -	0 / 0.000	5 / 0.080																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.081	0 / 0.000	5 / 0.081																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.075	5 / 0.075																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total	- / -	24 / 0.360	10 / 0.150	34 / 0.510	0 / 0.000	34 / 0.510	5 / 0.077	5 / 0.078	5 / 0.080	5 / 0.081	5 / 0.075	93 / 1.411																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	24	-	-	5	5	-	-	17	17	-	-	2	3	-	-	2	3	-	-	2	3	-	-	2	3	5	93
Out	-	-	-	-	24	-	-	5	5	-	-	17	17	-	-	2	3	-	-	2	3	-	-	2	3	-	-	2	3	5	93
Footnotes: ⁽⁵⁵⁾ ALR 67(V)3 (ECP 622) OCO Qty 100 being installed with Baseline funding.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	268.370	13.029	69.407	52.080	0.000	52.080	34.338	58.267	78.882	40.459	271.398	886.230
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	268.370	13.029	69.407	52.080	0.000	52.080	34.338	58.267	78.882	40.459	271.398	886.230
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	268.370	13.029	69.407	52.080	0.000	52.080	34.338	58.267	78.882	40.459	271.398	886.230
<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: Operational, Safety and Improvement Program (OSIP) 001-10 will implement a common configuration and capability across all F/A-18A-F and EA-18G aircraft. Improving platform performance in all mission areas including Surface Warfare (SuW), air-to-air, strike, Suppression of Enemy Air Defenses (SEAD)/Defensive Electronic Counter Measurements (DECD) and interoperability which will result in a reduction of a number of aircraft and weapons to execute SuW and strike missions in most stressing scenarios, decrease in time on target to execute SuW, SEAD/DECD missions in major combat operations scenarios and will improve survivability due to decreased time on target. The F/A-18 program has developed and integrated multiple systems to be installed in Lot 26 and subsequent block 2 and block 3 aircraft. The integration of the systems: ECP 6253 - Distributed Targeting System (DTS), Distributed Targeting Processor - Network (DTP-N), ECP 6442 - Data Transfer Unit (DTU), ECP 6393 - Digital Memory Device (DMD), Advanced Navigation (ANAV), ECP 6318 - Upgraded Solid State Recorder (USSR), digital cueing systems and G4 processor, and interoperability modifications due to multifunctional information distribution system low volume terminal and digital communication system radio military-standard will greatly improve the weapon systems threat capability. This OSIP will implement the required architecture in support of Navigation Plan 2030. The ANAV retrofit implements an advanced inertial navigation system/global positioning system that increases platform navigation accuracy and smart weapon targeting solutions. Due to ANAV obsolescence and continued aircraft production, the ANAV retrofit for E/F Lots 26-29 (ECP 6340R1) (TD574) has been put into abeyance in order to supply retrofit ANAVs for production aircraft deliveries. The current plan is for the PMW170 ANAV-M program to replace the ANAV, which will allow the ANAV retrofit program to be completed. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: DMD, ANAV, and digital countermeasure receiver were fully developed in FY 2008. DTS achieved IOC in Oct 2013. DTP-N is scheduled to complete non-recurring engineering in 2019, with procurement scheduled for 2020 and fielding in 2021. DTU has completed development up to and including Physical Configuration Audit. USSR (ECP-6318) is fully developed and being installed (EA-18G is complete, F/A-18F ongoing). USSR RMM Upgrade has been cancelled. USSR has reached terminal end of production due to technology obsolescence and will be replaced by the HDVR (OSIP 23-04). Conversion of Lots 30-32.5 from 12 channel ANAVS to 24 channel ANAVs was complete in July 2017.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Avionics Upgrade				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) DTS A1 KITS (LOTS 26-29) (ECP 6253) - NonOrganic ⁽⁵⁶⁾ Installation 1 of 3	169 / 6.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	169 / 6.165	
2.1.1) ANAV kit with WRA - NonOrganic Installation 1 of 3	166 / 16.077	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	166 / 16.077	
1.1.2) DTP-N A-kits (A1) (ECP6509) - NonOrganic Installation 2 of 3	- / -	- / -	- / -	59 / 1.013	- / -	59 / 1.013	24 / 0.420	52 / 0.926	93 / 1.687	5 / 0.092	335 / 6.528	568 / 10.666	
1.1.3) DTP-N A-kits (A2) (ECP6509) - NonOrganic Installation 2 of 3	- / -	- / -	- / -	59 / 1.013	- / -	59 / 1.013	24 / 0.420	52 / 0.926	93 / 1.687	5 / 0.092	41 / 0.769	274 / 4.907	
1.1.4) DMD A Kit (LOTS 26-29) - NonOrganic Installation 3 of 3	130 / 7.197	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	130 / 7.197	
1.1.5) DTU A-kits - Organic ^(*)	28 / 0.000	90 / 0.001	101 / 0.001	101 / 0.001	- / -	101 / 0.001	110 / 0.001	110 / 0.001	- / -	- / -	65 / 0.001	605 / 0.006	
1.1.6) A-Kits Archive - Organic ^(*)	964 / 25.280	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	964 / 25.280	
1.2.1) Installation Kits N/R - Organic ^{(*) (57)}	- / 13.189	- / -	- / 1.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.239	
2.1.2) DTS B kits (lots 26 and above) (ECP 6253) - Organic ^(*)	368 / 91.368	50 / 4.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	418 / 95.568	
2.1.3) DTP-N B-kits (DTP-N) (ECP6509) - Organic ^(*)	- / -	- / -	- / -	48 / 31.200	- / -	48 / 31.200	18 / 11.898	45 / 30.240	73 / 49.932	45 / 31.275	335 / 234.872	564 / 389.417	
2.1.4) DTP-N B-Kits (MSU) (ECP 6253) - Organic ^(*)	- / -	- / -	- / -	20 / 1.534	- / -	20 / 1.534	30 / 2.328	81 / 6.362	51 / 4.054	13 / 1.051	32 / 2.631	227 / 17.960	
2.1.5) DTP-N B-kits (BDCs) (ECP 6253) - Organic ^(*)	- / -	- / -	- / -	67 / 1.130	- / -	67 / 1.130	72 / 1.229	156 / 2.696	148 / 2.588	32 / 0.569	62 / 1.121	537 / 9.333	
2.1.6) DTU Kits - Organic ^(*)	185 / 12.056	- / -	101 / 6.082	101 / 6.192	- / -	101 / 6.192	110 / 6.865	110 / 6.988	85 / 5.497	- / -	90 / 5.400	782 / 49.080	
2.1.7) DTU Ground Encryptor - Organic ^(*)	182 / 9.319	- / -	100 / 4.988	100 / 5.078	- / -	100 / 5.078	91 / 4.704	86 / 4.526	75 / 4.018	- / -	94 / 4.606	728 / 37.239	
2.1.8) DTU Memory Modules - Organic ^(*)	650 / 1.962	- / -	624 / 1.207	530 / 1.044	- / -	530 / 1.044	501 / 1.004	616 / 1.257	600 / 1.246	- / -	558 / 1.060	4,079 / 8.780	
2.1.9) DTU AME Cables - Organic ^(*)	143 / 0.277	- / -	80 / 0.106	81 / 0.109	- / -	81 / 0.109	10 / 0.014	31 / 0.043	25 / 0.036	- / -	88 / 0.114	458 / 0.699	
2.1.10) B-Kits Archive - Organic ^(*)	739 / 29.605	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	739 / 29.605	
2.2.1) Installation Equipment N/R - Organic ^{(*) (58)}	- / 6.443	- / 1.527	- / 46.030	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 54.000	
Subtotal: Procurement	- / 218.938	- / 5.728	- / 59.464	- / 48.314	- / -	- / 48.314	- / 28.883	- / 53.965	- / 70.745	- / 33.079	- / 257.102	- / 776.218	
Support													
3.2) Data	- / 2.501	- / -	- / -	- / -	- / -	- / -	- / 0.075	- / -	- / -	- / -	- / -	- / 2.576	
3.3) Training Equipment	- / -	- / -	- / 0.337	- / -	- / -	- / -	- / -	- / -	- / 1.728	- / -	- / -	- / 2.065	
3.4) Support Equipment	- / 12.381	- / 0.266	- / 0.388	- / -	- / -	- / -	- / -	- / 0.396	- / 0.541	- / 0.469	- / -	- / 14.441	
3.5) ILS	- / 13.019	- / 2.566	- / 2.605	- / 0.388	- / -	- / 0.388	- / 0.395	- / 0.402	- / 0.413	- / 0.417	- / 1.535	- / 21.740	
3.6) Other Support	- / 16.235	- / 2.708	- / 2.498	- / 2.769	- / -	- / 2.769	- / 2.824	- / 2.880	- / 4.033	- / 4.074	- / 3.022	- / 41.043	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Avionics Upgrade				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<i>Subtotal: Support</i>	- / 44.136	- / 5.540	- / 5.828	- / 3.157	- / -	- / 3.157	- / 3.294	- / 3.678	- / 6.715	- / 4.960	- / 4.557	- / 81.865	
Installation													
<i>Installation 1 of 3:</i> GRP: Prior Year Procurements	- / 4.856	- / 1.542	- / 3.889	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 10.287	
<i>Installation 2 of 3:</i> GRP: ECP6509 Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.540	- / 0.624	- / 1.422	- / 2.420	- / 9.739	- / 15.745	
<i>Installation 3 of 3:</i> DMD A Kit (LOTS 26-29)	- / 0.440	- / 0.219	- / 0.226	- / 0.609	- / 0.000	- / 0.609	- / 0.621	- / -	- / -	- / -	- / 0.000	- / 2.115	
<i>Subtotal: Installation</i>	- / 5.296	- / 1.761	- / 4.115	- / 0.609	- / -	- / 0.609	- / 2.161	- / 0.624	- / 1.422	- / 2.420	- / 9.739	- / 28.147	
Total													
Total Cost (Procurement + Support + Installation)	268.370	13.029	69.407	52.080	0.000	52.080	34.338	58.267	78.882	40.459	271.398	886.230	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: GRP: Prior Year Procurements																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Various:: Installation Name: Prior Year Procurements																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		181 / 4.856		36 / 1.542		118 / 3.889		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		335 / 10.287					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		181 / 4.856		36 / 1.542		118 / 3.889		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		335 / 10.287					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	181	9	9	9	9	29	29	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	335
Out	181	9	9	9	9	29	29	30	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	335

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: GRP: ECP6509 Installation																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023					
Delivery Dates										Nov 2020				Nov 2021				Nov 2022				Nov 2023				Nov 2024					
Installation Information																															
Method of Implementation: Method:: Installation Name: ECP6509 Installation																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		118 / 1.540		- / -		- / -		- / -		0 / 0.000		118 / 1.540					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.624		- / -		- / -		0 / 0.000		48 / 0.624					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		104 / 1.422		- / -		0 / 0.000		104 / 1.422					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		186 / 2.420		0 / 0.000		186 / 2.420					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.136		10 / 0.136					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		376 / 9.603		376 / 9.603					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		118 / 1.540		48 / 0.624		104 / 1.422		186 / 2.420		386 / 9.739		842 / 15.745					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	30	28	12	12	12	12	26	26	26	26	48	48	48	42	386	842
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	30	30	30	28	12	12	12	12	26	26	26	26	48	48	48	42	386	842

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 3: DMD A Kit (LOTS 26-29)																															
Manufacturer Information																															
Manufacturer Name: Boeing - DMD A Kit (LOTS 26-29)															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 33																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: DMD A Kit (LOTS 26-29)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		26 / 0.440		12 / 0.219		12 / 0.226		37 / 0.609		0 / 0.000		37 / 0.609		43 / 0.621		- / -		- / -		- / -		0 / 0.000		130 / 2.115							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		26 / 0.440		12 / 0.219		12 / 0.226		37 / 0.609		0 / 0.000		37 / 0.609		43 / 0.621		- / -		- / -		- / -		0 / 0.000		130 / 2.115							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	3	3	3	3	9	8	8	12	14	14	15	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	26	3	3	3	3	3	3	3	3	9	8	8	12	14	14	15	-	-	-	-	-	-	-	-	-	-	-	-	-		
Footnotes: ⁽⁵⁶⁾ DTS Kit installs were delayed due to non-availability of fleet aircraft. ⁽⁵⁷⁾ Install Kits N/R in FY19 is for DTP-N A-Kits.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 14 / Network Centric Operations: (OSIP 001-10)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(58) Increased NRE in FY19 is for DTP-N B-Kits.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	134.833	40.476	50.650	73.527	0.000	73.527	89.990	104.758	91.307	93.133	52.595	731.269
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	134.833	40.476	50.650	73.527	0.000	73.527	89.990	104.758	91.307	93.133	52.595	731.269
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	134.833	40.476	50.650	73.527	0.000	73.527	89.990	104.758	91.307	93.133	52.595	731.269
(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:

With EA-18G aircraft achieving initial operational capability in FY2009, an Operational, Safety and Improvement Program (OSIP) to perform required safety of flight modifications, address obsolescence issues, and incorporate system improvements was established. Funding supports the retrofit of the ALQ-99 tactical jamming system. ECP 6360, the Joint Tactical Terminal-Receiver (JTT-R) was developed to replace the Multi-Mission Advanced Tactical Terminal (MATT) to address MATT obsolescence and capability deficiencies. OSIP funding was used to retrofit the aircraft with JTT-R at the completion of the development program. Future SATCOM (i.e. JTT-R) modifications will exist on EA-18G and will require funding for software and hardware updates. OSIP funding will also support a common configuration and airborne electronic attack (AEA) I-level standup which includes the procurement and fielding of operational test program sets (OTPS) as support equipment for the I-level stand up. Funds are required to support Weapons Replaceable Assemblies (WRAs) and Shop Replaceable Assemblies (SRAs) to achieve depot standup SRA/WRA capability. EA-18G software modifications are budgeted to support and stay abreast with emerging electronic warfare threats and the software modifications required to react to those threats. OSIP funding will be used to retrofit ALQ-218(V)2 hardware and software on board the EA-18G for increased emitter detection (ECP 6482 Airborne Electronic Attack Systems Enhancements (ASE)). ECP 6312 (EA-18G AESA Blanking Wire Group and CCS Mid-board Group A) supports Counter Communications Set (CCS)/ AESA Blanking capabilities during future jamming operations for EA-18G. This ECP adds CCS provisional wiring as well as a blanking wire from the AESA/Electronic Interface Blanking Unit (EIBU) to the ALQ-218(V)2 onboard the EA-18G. ECP 6444 is part of the weight reduction initiative in order to support future EA-18G modifications and jamming capabilities. ECP 6479 is an EA-18G aircraft wiring modification supporting the software upgrade of Time Difference of Arrival (TDOA) one pulse per second signal. ECP 6464 addresses EIBU obsolescence and incorporates the Radio Frequency Blanking Unit (RFBU) as a form, fit, function replacement to the EIBU to support EA-18G operations.

Funds are provided for integrating Reactive Electronic Attack Measures (REAM) capability. This technology and hardware upgrade of the Electronic Attack Unit (EAU) will bring Cognitive Electronic Warfare capability to the platform and is the start to EA-18G BLK II modernization as well as development and integration of special mission pods in support of BLK II modernization.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

REAM development is funded out of RDT&E; procurement to follow.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EA-18G				Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT				Related RDT&E PEs: 0604269N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ECP 6312 - EA-18G AESA Blanking Wire Group A and CCS Mid-board Group A - NonOrganic Installation 1 of 6	4 / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.400	
1.1.2) ECP 6444 - EA-18G Weight Reduction Initiative - NonOrganic Installation 2 of 6	- / -	- / -	8 / 0.440	28 / 1.540	- / -	28 / 1.540	32 / 1.792	32 / 1.792	32 / 1.824	15 / 0.870	- / -	147 / 8.258	
1.1.3) ECP 6479 - One Pulse Per Second (1PPS) - NonOrganic Installation 3 of 6	155 / 0.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	155 / 0.025	
1.1.4) ECP 6482 - ASE (ALQ-218 Modifications) - NonOrganic Installation 4 of 6	- / -	- / -	8 / 0.064	28 / 0.229	- / -	28 / 0.229	32 / 0.267	32 / 0.272	32 / 0.277	15 / 0.132	- / -	147 / 1.241	
1.1.5) A-kits Archive - Organic ^(*)	- / 6.620	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.620	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 1.730	- / -	- / 0.448	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.178	
2.1.1) ECP 6464 - RFBU - Organic ^(*)	- / -	77 / 3.850	77 / 3.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	154 / 7.777	
2.1.2) ECP 6482 ASE - (ALQ-218 Modifications (WRAs)) - NonOrganic ⁽⁵⁹⁾ Installation 5 of 6	- / -	- / -	4 / 1.365	25 / 11.348	- / -	25 / 11.348	32 / 14.815	32 / 15.112	32 / 15.414	18 / 8.844	4 / 2.005	147 / 68.903	
2.1.3) ECP 6482 ASE - (ALQ-218 Modifications (AEA/GBP)) - NonOrganic Installation 6 of 6	5 / 5.000	- / -	8 / 2.880	24 / 8.813	- / -	24 / 8.813	24 / 8.989	24 / 9.169	24 / 9.352	24 / 9.539	14 / 5.676	147 / 59.418	
2.1.4) EA-18G SCS - Organic ^(*) (60)	- / 11.509	- / 3.690	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.199	
2.1.5) Advanced Modes 1 and 2, REAM/Cognitive EW - Organic ^(*) (61)	- / -	- / -	- / 20.935	- / 23.929	- / -	- / 23.929	- / 24.461	- / 26.944	- / 23.584	- / 21.349	- / 15.000	- / 156.202	
2.1.6) EA-18G SCS- H14 - Organic ^(*)	- / -	- / -	- / 0.014	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.014	
2.1.7) EA-18G SCS- H16 - Organic ^(*)	- / -	- / -	- / 3.088	- / 4.000	- / -	- / 4.000	- / 5.895	- / 6.500	- / 5.144	- / 5.000	- / -	- / 29.627	
2.1.8) EA-18G SCS- H18 - Organic ^(*) (62)	- / -	- / -	- / -	- / 6.172	- / -	- / 6.172	- / 6.980	- / 16.235	- / 14.015	- / 14.895	- / -	- / 58.297	
2.1.9) H16 TDOA Block 2 - Organic ^(*)	- / -	- / 10.322	- / 4.478	- / 4.818	- / -	- / 4.818	- / 5.914	- / 6.053	- / 3.700	- / 3.663	- / -	- / 38.948	
2.1.10) B-Kits Archive - Organic ^(*)	- / 76.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 76.210	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 14.094	- / 8.645	- / 3.055	- / 3.249	- / -	- / 3.249	- / 3.279	- / 2.000	- / -	- / -	- / -	- / 34.322	
Subtotal: Procurement	- / 115.588	- / 26.507	- / 40.694	- / 64.098	- / -	- / 64.098	- / 72.392	- / 84.077	- / 73.310	- / 64.292	- / 22.681	- / 563.639	
Support													
3.2) Data ⁽⁶³⁾	- / 4.413	- / 1.851	- / 1.898	- / 1.505	- / -	- / 1.505	- / 1.520	- / 1.530	- / 0.180	- / 0.500	- / 0.525	- / 13.922	
3.3) Training Equipment	- / 0.172	- / 0.750	- / 0.500	- / 0.600	- / -	- / 0.600	- / 0.650	- / 0.500	- / 0.200	- / 0.500	- / 0.200	- / 4.072	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EA-18G			Modification Type: SAFETY /RELIABILITY/ IMPROVEMENT					Related RDT&E PEs: 0604269N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.4) Support Equipment	- / 2.105	- / 5.167	- / 2.281	- / 0.289	- / -	- / 0.289	- / 0.327	- / 1.368	- / 0.108	- / 10.077	- / 5.550	- / 27.272	
3.5) ILS	- / 4.290	- / 2.405	- / 0.743	- / 0.758	- / -	- / 0.758	- / 0.773	- / 0.788	- / 0.804	- / 0.820	- / 7.630	- / 19.011	
3.6) Other Support	- / 8.017	- / 3.460	- / 3.529	- / 3.600	- / -	- / 3.600	- / 3.672	- / 3.745	- / 3.820	- / 3.897	- / 5.750	- / 39.490	
Subtotal: Support	- / 18.997	- / 13.633	- / 8.951	- / 6.752	- / -	- / 6.752	- / 6.942	- / 7.931	- / 5.112	- / 15.794	- / 19.655	- / 103.767	
Installation													
Installation 1 of 6: ECP 6312 - EA-18G AESA Blanking Wire Group A and CCS Mid-board Group A	- / 0.248	- / -	- / 0.218	- / 0.218	- / 0.000	- / 0.218	- / -	- / -	- / -	- / -	- / 0.000	- / 0.684	
Installation 2 of 6: ECP 6444 - EA-18G Weight Reduction Initiative	- / -	- / -	- / -	- / 0.640	- / 0.000	- / 0.640	- / 2.240	- / 2.560	- / 2.560	- / 2.560	- / 1.920	- / 12.480	
Installation 3 of 6: ECP 6479 - One Pulse Per Second (1PPS)	- / -	- / 0.336	- / 0.387	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.723	
Installation 4 of 6: ECP 6482 - ASE (ALQ-218 Modifications)	- / -	- / -	- / -	- / 0.368	- / 0.000	- / 0.368	- / 1.288	- / 1.472	- / 1.472	- / 1.472	- / 0.690	- / 6.762	
Installation 5 of 6: ECP 6482 ASE - (ALQ-218 Modifications (WRAs))	- / -	- / -	- / -	- / 0.811	- / 0.000	- / 0.811	- / 5.170	- / 6.750	- / 6.885	- / 7.023	- / 2.463	- / 29.102	
Installation 6 of 6: ECP 6482 ASE - (ALQ-218 Modifications (AEA/GBP))	- / -	- / -	- / 0.400	- / 0.640	- / 0.000	- / 0.640	- / 1.958	- / 1.968	- / 1.968	- / 1.992	- / 5.186	- / 14.112	
Subtotal: Installation	- / 0.248	- / 0.336	- / 1.005	- / 2.677	- / -	- / 2.677	- / 10.656	- / 12.750	- / 12.885	- / 13.047	- / 10.259	- / 63.863	
Total													
Total Cost (Procurement + Support + Installation)	134.833	40.476	50.650	73.527	0.000	73.527	89.990	104.758	91.307	93.133	52.595	731.269	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019																								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)																							
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:																								
Installation 1 of 6: ECP 6312 - EA-18G AESA Blanking Wire Group A and CCS Mid-board Group A																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6312 EA-18G AESA Blanking Wire Group A and CCS Mid-board Group A							Manufacturer Location: St Louis, MO																								
Administrative Leadtime (in Months): 12							Production Leadtime (in Months): 18																								
Dates	FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024												
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification Team:: Installation Name: ECP 6312 - EA-18G AESA Blanking Wire Group A and C																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 0.248	- / -	1 / 0.218	2 / 0.218	0 / 0.000	2 / 0.218	- / -	- / -	- / -	- / -	0 / 0.000	4 / 0.684																			
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total	1 / 0.248	- / -	1 / 0.218	2 / 0.218	0 / 0.000	2 / 0.218	- / -	- / -	- / -	- / -	0 / 0.000	4 / 0.684																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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
Out	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0525 / F-18 Series											Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)										
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:																
Installation 2 of 6: ECP 6444 - EA-18G Weight Reduction Initiative																																
Manufacturer Information																																
Manufacturer Name: Boeing - ECP 6444														Manufacturer Location: St. Louis																		
Administrative Leadtime (in Months): 6														Production Leadtime (in Months): 6																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024						
Delivery Dates						Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024						
Installation Information																																
Method of Implementation: Contractor Field Mod Team:: Installation Name: ECP 6444 - EA-18G Weight Reduction Initiative																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -		- / -		- / -		8 / 0.640		0 / 0.000		8 / 0.640		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.640						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		28 / 2.240		- / -		- / -		- / -		- / -		0 / 0.000		28 / 2.240						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 2.560		- / -		- / -		- / -		0 / 0.000		32 / 2.560						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 2.560		- / -		- / -		0 / 0.000		32 / 2.560						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 2.560		0 / 0.000		32 / 2.560						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 1.920		15 / 1.920						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -		- / -		- / -		8 / 0.640		0 / 0.000		8 / 0.640		28 / 2.240		32 / 2.560		32 / 2.560		32 / 2.560		15 / 1.920		147 / 12.480								
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	15	147	
Out	-	-	-	-	-	-	-	-	-	2	2	2	2	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	15	147	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: ECP 6479 - One Pulse Per Second (1PPS)																															
Manufacturer Information																															
Manufacturer Name: CKA - ECP 6479 1PPS															Manufacturer Location: Orange Park, FL																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP 6479 - One Pulse Per Second (1PPS)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		72 / 0.336		83 / 0.387		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		155 / 0.723					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		72 / 0.336		83 / 0.387		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		155 / 0.723					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	24	24	24	24	24	24	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155
Out	-	-	24	24	24	24	24	24	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	155

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 6: ECP 6482 - ASE (ALQ-218 Modifications)																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP 6482 - ASE (ALQ-218 Modifications)															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates						Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: ECP 6482 - ASE (ALQ-218 Modifications)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		8 / 0.368		0 / 0.000		8 / 0.368		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.368					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		28 / 1.288		- / -		- / -		- / -		- / -		0 / 0.000		28 / 1.288					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 1.472		- / -		- / -		- / -		0 / 0.000		32 / 1.472					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 1.472		- / -		- / -		0 / 0.000		32 / 1.472					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 1.472		0 / 0.000		32 / 1.472					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.690		15 / 0.690					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		8 / 0.368		0 / 0.000		8 / 0.368		28 / 1.288		32 / 1.472		32 / 1.472		32 / 1.472		32 / 1.472		15 / 0.690		147 / 6.762					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	-	-	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	15	147
Out	-	-	-	-	-	-	-	-	-	4	4	-	-	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	15	147

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 6: ECP 6482 ASE - (ALQ-218 Modifications (WRAs))																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman - ECP 6482 WRAs															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates						Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: ECP 6482 ASE - (ALQ-218 Modifications (WRAs))																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		4 / 0.811		0 / 0.000		4 / 0.811		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.811					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		25 / 5.170		- / -		- / -		- / -		- / -		0 / 0.000		25 / 5.170					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 6.750		- / -		- / -		- / -		0 / 0.000		32 / 6.750					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 6.885		- / -		- / -		0 / 0.000		32 / 6.885					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 7.023		0 / 0.000		32 / 7.023					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 2.015		18 / 2.015					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.448		4 / 0.448					
Total		- / -		- / -		- / -		4 / 0.811		0 / 0.000		4 / 0.811		25 / 5.170		32 / 6.750		32 / 6.885		32 / 7.023		22 / 2.463		147 / 29.102							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	6	6	6	7	8	8	8	8	8	8	8	8	8	8	8	8	22	147
Out	-	-	-	-	-	-	-	-	-	4	-	-	-	6	6	6	7	8	8	8	8	8	8	8	8	8	8	8	8	22	147

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 6: ECP 6482 ASE - (ALQ-218 Modifications (AEA/GBP))																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman - ECP 6482 GBP														Manufacturer Location: Various																	
Administrative Leadtime <i>(in Months)</i> : 6														Production Leadtime <i>(in Months)</i> : 6																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates						Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: ECP 6482 ASE - (ALQ-218 Modifications (AEA/GBP))																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.400		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.400							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		8 / 0.640		0 / 0.000		8 / 0.640		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.640							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.958		- / -		- / -		- / -		0 / 0.000		24 / 1.958							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.968		- / -		- / -		0 / 0.000		24 / 1.968							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.968		- / -		0 / 0.000		24 / 1.968							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.992		0 / 0.000		24 / 1.992							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 2.032		24 / 2.032							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 3.154		14 / 3.154							
Total		- / -		- / -		5 / 0.400		8 / 0.640		0 / 0.000		8 / 0.640		24 / 1.958		24 / 1.968		24 / 1.968		24 / 1.992		38 / 5.186		147 / 14.112							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	38	147
Out	-	-	-	-	-	-	-	2	3	2	2	2	2	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	38	147
Footnotes: ⁽⁵⁹⁾ Funding in FY20 - FY22 includes costs for the Low Band Dedicated Receiver (LBDR) Weapons Replaceable Assembly (WRA). ⁽⁶⁰⁾ Increases in FY20 - FY24 are due to addition of Advance Modes 1 and 2, Reactive Electronic Attack Measures (REAM), and Cognitive EW software upgrades. ⁽⁶¹⁾ FY 19 \$13.9M Congressional Add for Cognitive EW/ Advanced Modes (REAM). Increases in FY20 - FY24 are due to addition of Advance Modes 1 and 2, Reactive Electronic Attack Measures (REAM), and Cognitive EW software upgrades.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 15 / EA-18G Unique OSIP (011-10)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(62) Increases from FY20 to FY24 due to H18 block upgrades as well as interoperability with Reactive Electronic Attack Measures (REAM). (63) Data increases from FY20-FY22 support H16/H18 Block upgrades as well as Cognitive EW/Advanced Modes and Reactive Electronic Attack Measures (REAM) efforts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 16 / Power and Propulsion (11-13)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	76.132	36.261	68.212	54.108	0.000	54.108	55.739	60.343	71.134	70.783	0.000	492.712
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	76.132	36.261	68.212	54.108	0.000	54.108	55.739	60.343	71.134	70.783	0.000	492.712
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	76.132	36.261	68.212	54.108	0.000	54.108	55.739	60.343	71.134	70.783	0.000	492.712
(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 OSIP incorporates safety and life-limiting propulsion and power corrective actions to resolve safety and readiness concerns. Corrections to design deficiencies found during post production test and evaluation and discovered during fleet operations that have resulted in safety and reliability degradation must be corrected. The requirement to upgrade or modify the engine, system secondary power system, electrical system, and fuel systems is critical in maintaining sustainable fleet reliability, safety, and performance and is necessary to meet mission requirements. Modifications include Generator Convertor Units (GCUs), GCU Peculiar Support Equipment (PSE), electrical power and secondary power systems for service life extension.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 16 / Power and Propulsion (11-13)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Safety, Readiness, Reliability				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
2.1.1) Archived ECPs - Organic ^(t)	1,628 / 1.888	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,628 / 1.888	
2.1.2) GCU Reliability Upgrade midterm (ECP 6421) Pt 3 G3/G4 - Organic ^(t)	412 / 52.346	198 / 25.550	234 / 40.950	120 / 21.420	- / -	120 / 21.420	119 / 21.666	93 / 17.271	- / -	- / -	- / -	1,176 / 179.203	
2.1.3) GCU Reliability Upgrade midterm Pt 3 (ECP 6421) G4 - Organic ^(t)	7 / 1.605	37 / 7.806	91 / 24.115	109 / 29.463	- / -	109 / 29.463	112 / 30.879	141 / 39.652	120 / 34.421	- / -	- / -	617 / 167.941	
2.2.1) Installation Equipment N/R - Organic ^(t) ⁽⁶⁴⁾	- / 0.278	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 67.537	- / -	- / 67.815	
Subtotal: Procurement	- / 56.117	- / 33.356	- / 65.065	- / 50.883	- / -	- / 50.883	- / 52.545	- / 56.923	- / 34.421	- / 67.537	- / 0.000	- / 416.847	
Support													
3.2) Data	- / 0.002	- / -	- / 0.103	- / 0.214	- / -	- / 0.214	- / 0.130	- / 0.300	- / -	- / -	- / -	- / 0.749	
3.3) Training Equipment	- / 0.119	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.119	
3.4) Support Equipment ⁽⁶⁵⁾	- / 9.638	- / -	- / 0.087	- / -	- / -	- / -	- / -	- / -	- / 33.531	- / -	- / -	- / 43.256	
3.5) ILS	- / 1.148	- / 0.989	- / 1.007	- / 1.025	- / -	- / 1.025	- / 1.043	- / 1.062	- / 1.083	- / 1.105	- / -	- / 8.462	
3.6) Other Support	- / 9.108	- / 1.916	- / 1.950	- / 1.986	- / -	- / 1.986	- / 2.021	- / 2.058	- / 2.099	- / 2.141	- / -	- / 23.279	
Subtotal: Support	- / 20.015	- / 2.905	- / 3.147	- / 3.225	- / -	- / 3.225	- / 3.194	- / 3.420	- / 36.713	- / 3.246	- / 0.000	- / 75.865	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	76.132	36.261	68.212	54.108	0.000	54.108	55.739	60.343	71.134	70.783	0.000	492.712	
Footnotes: ⁽⁶⁴⁾ NRE funding in FY24 is for engineering efforts for ECP 6421 G5. Kits for ECP 6421 G5 are expected to be procured in FY 2025. ⁽⁶⁵⁾ Support equipment increases in FY23 for depot stand up of ECP 6421 G4.													

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 17 / Infrared Search and Track (IRST) (04-14)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	157.366	134.034	60.195	85.835	0.000	85.835	185.110	229.598	199.719	208.859	321.601	1,582.317
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	157.366	134.034	60.195	85.835	0.000	85.835	185.110	229.598	199.719	208.859	321.601	1,582.317
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	157.366	134.034	60.195	85.835	0.000	85.835	185.110	229.598	199.719	208.859	321.601	1,582.317
(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:

Description:

The Infrared Search and Track (IRST) will provide the F/A-18E/F (Lot 26 and up) with an Alternative Fire Control System in a high electronic attack/radar denied environment. IRST is an evolutionary program using a block approach. This Operational, Safety and Improvement Program (OSIP) is used to procure Block I IRST systems [Low Rate Initial Production (LRIP) lots 1 and 2], Infrared Optimized Configuration (IROC) and AV6+ modifications, Block II Engineering Change Proposal (ECP) modifications and incorporation including retrofit and forward fit [LRIP lots 3 through 6 and FRP] as well as all initial integrated logistics support activities to include special tooling, support equipment, production test equipment, I Level stand-up, reliability, maintainability, obsolescence and reliability growth activities in support of system Block II modification.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

IRST development began in FY2008. IRST Block I Milestone B occurred on 17 June 2011 and the Acquisition Decision Memorandum was signed 12 July 2011. Block I Milestone C occurred on 02 December 2014 and the Acquisition Decision Memorandum (ADM) was signed 24 March 2015. IRST was reclassified as an Acquisition Category IC Major Defense Acquisition Program (P510) on 5 November 2016. The ACAT IC APB was signed 13 February 2017. A successful MS-C review was conducted 4 December 2018. The Full Rate Production milestone decision review is scheduled for 3rd Quarter FY 2021 with Initial Operational Capability scheduled for 4th Quarter FY 2021.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 17 / Infrared Search and Track (IRST) (04-14)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18 E/F				Modification Type: CAPABILITY IMPROVEMENTS				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> Infrared Search and Track (IRST) (04-14)													
B Kits													
Recurring													
2.1.1) IRST B-kits (Block I) - Organic ⁽⁶⁶⁾	18 / 135.411	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 135.411	
2.1.2) IRST IROC - Organic	- / -	16 / 131.555	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 131.555	
2.1.3) IRST B-kits (Block II) - Organic	- / -	- / -	6 / 44.300	12 / 64.220	- / -	12 / 64.220	25 / 86.258	40 / 154.683	40 / 144.525	29 / 108.407	- / -	152 / 602.393	
2.1.4) IRST B-Kits (Block I to Block II) - Organic ⁽⁶⁷⁾	- / -	- / -	- / -	- / -	- / -	- / -	12 / 26.559	- / -	- / -	3 / 4.007	- / -	15 / 30.566	
<i>Subtotal: Recurring</i>	- / 135.411	- / 131.555	- / 44.300	- / 64.220	- / -	- / 64.220	- / 112.817	- / 154.683	- / 144.525	- / 112.414	- / 0.000	- / 899.925	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic ⁽⁶⁸⁾	- / 13.483	- / -	- / 3.020	- / 3.199	- / -	- / 3.199	- / 23.250	- / 11.129	- / 10.719	- / 12.083	- / 198.223	- / 275.106	
<i>Subtotal: Non-Recurring</i>	- / 13.483	- / -	- / 3.020	- / 3.199	- / -	- / 3.199	- / 23.250	- / 11.129	- / 10.719	- / 12.083	- / 198.223	- / 275.106	
<i>Subtotal: Infrared Search and Track (IRST) (04-14)</i>	18 / 148.894	16 / 131.555	6 / 47.320	12 / 67.419	- / -	12 / 67.419	37 / 136.067	40 / 165.812	40 / 155.244	32 / 124.497	- / 198.223	201 / 1,175.031	
<i>Subtotal: Procurement, All Modification Items</i>	- / 148.894	- / 131.555	- / 47.320	- / 67.419	- / -	- / 67.419	- / 136.067	- / 165.812	- / 155.244	- / 124.497	- / 198.223	- / 1,175.031	
Support (All Modification Items)													
3.2) Data	- / 0.008	- / -	- / 0.095	- / 0.073	- / -	- / 0.073	- / 0.073	- / 1.797	- / 3.518	- / 3.075	- / 3.137	- / 11.776	
3.3) Training Equipment	- / -	- / -	- / 2.886	- / 2.792	- / -	- / 2.792	- / 3.400	- / 0.464	- / -	- / -	- / -	- / 9.542	
3.4) Support Equipment ⁽⁶⁹⁾	- / 0.454	- / 0.930	- / 1.677	- / 7.267	- / -	- / 7.267	- / 37.120	- / 52.906	- / 32.166	- / 72.320	- / 111.094	- / 315.934	
3.5) ILS	- / 2.307	- / -	- / 1.712	- / 1.746	- / -	- / 1.746	- / 1.781	- / 1.817	- / 1.853	- / 1.890	- / 1.928	- / 15.034	
3.6) Other Support	- / 5.703	- / 1.549	- / 6.505	- / 6.538	- / -	- / 6.538	- / 6.669	- / 6.802	- / 6.938	- / 7.077	- / 7.219	- / 55.000	
<i>Subtotal: Support</i>	- / 8.472	- / 2.479	- / 12.875	- / 18.416	- / -	- / 18.416	- / 49.043	- / 63.786	- / 44.475	- / 84.362	- / 123.378	- / 407.286	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	157.366	134.034	60.195	85.835	0.000	85.835	185.110	229.598	199.719	208.859	321.601	1,582.317	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 17 / Infrared Search and Track (IRST) (04-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Infrared Search and Track (IRST) (04-14)		
Footnotes: ⁽⁶⁶⁾ IRST kits are O-level install items and have no related install cost/schedule. ⁽⁶⁷⁾ Quantity of 18 "Block I to Block II" kits will convert Block I kits to Block II kits. ⁽⁶⁸⁾ Funding increases in FY21 due to NRE required for ramp up of Block I retrofit security enhancements (Block I to Block II). ⁽⁶⁹⁾ Support Equipment increases in FY21 - FY24 for I-Level stand up.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 18 / Automated Information Systems (AIS) (OSIP 018-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	126.671	17.290	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.961
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	126.671	17.290	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.961
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	126.671	17.290	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.961
<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: This Operational, Safety and Improvement Program (OSIP) will cover F/A-18 A-D, E/F and EA-18G Automated Maintenance Environment (AME), which includes initial procurement of software licenses, data rights, and technical publication updates including Integrated Electronic Technical Manuals (IETMs). This OSIP also covers Information Assurance (IA) and Weaponizing, Integrated, Naval Aviation Technical Information Product (NATIP) and Naval Air Training and Operating Procedures Standardization (NATOPS) (WINN). NATIP and NATOPS are permanent flight clearances. This OSIP is required to provide updated/modified data for F/A-18 and EA-18G aircrew (user's manuals, pocket guides, safety-of-flight envelopes and tactical /non-tactical system employment envelopes) associated with approved aircraft engineering changes that update/enhance aircraft operational capabilities. WINN tactical employment data developed and distributed via NATIP are mandated by Office of the Chief of Naval Operations Instructions (OPNAVINST) 3510.15. WINN non-tactical employment data developed and distributed via NATOPS are mandated by OPNAVINST 3710. This OSIP will also provide Information Assurance (IA) compliance for F/A-18 A-F and EA-18G systems by updating certification and accreditation (C&A) documentation, and future IA mandates in order to maintain the Authority to Operate (ATO) for all required C&A approval. Modifications incorporated for AME integration are authorized via associated SCS software builds, SPAWAR Program Of Record (POR) Acquisition Decision Memorandums, and Engineering Change Proposals (ECPs). OSIP 18-14 requirements are realigned to OSIP 23-04 beginning in FY19 in order to more accurately execute software improvement driven modifications. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: F/A-18A-D, E/F and G NATIP: Classified and unclassified product development was completed in FY15 for F/A-18A-D and F/A-18E/F, and end of FY17/18 for EA-18G. Updates to published classified/unclassified chapters are increasing as additional chapters are fielded and new SCS developments (27C, H14, H16, H18) mature. F/A-18 and EA-18G NATOPS: Development is complete and updates are ongoing. The C&A status of F/A-18 AME (FAME) 1.0 is as follows: FAME 1.0 has been granted an ATO with both the United States Navy (USN) and the United States Marine Corps (USMC) until 1 July 2019.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 18 / Automated Information Systems (AIS) (OSIP 018-14)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: Safety				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
2.1.1) Automated Maintenance Environment (AME) software mod - Organic ^(*)	- / 16.642	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.642	
<i>Subtotal: Procurement</i>	- / 16.642	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 16.642	
Support													
3.2) Software	- / 58.763	- / 11.957	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 70.720	
3.3) Data	- / 27.246	- / 4.764	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 32.010	
3.4) Training Equipment	- / -	- / 0.129	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.129	
3.6) ILS	- / 4.134	- / 0.053	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.187	
3.7) Other Support	- / 19.886	- / 0.387	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.273	
<i>Subtotal: Support</i>	- / 110.029	- / 17.290	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 127.319	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	126.671	17.290	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.961	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	80.018	90.224	150.586	133.567	0.000	133.567	187.801	243.414	461.418	387.300	2,824.885	4,559.213
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	80.018	90.224	150.586	133.567	0.000	133.567	187.801	243.414	461.418	387.300	2,824.885	4,559.213
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	80.018	90.224	150.586	133.567	0.000	133.567	187.801	243.414	461.418	387.300	2,824.885	4,559.213
<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: Incorporation of structural and sub-systems enhancements and changes are required to extend the F/A-18E/F service life and maintain sufficient aircraft inventory to meet fleet operational requirements through FY2043. Enhancements and changes include resolution of discrepancies identified as a result of Service Life Assessment Program (SLAP) analysis and in-service experience. These enhancements and changes include modifications to the entire airframe and aircraft sub-systems to extend flight hours, as well as modifications to ensure landing gear, catapult and attachment components can extend total landings. These modifications include: Block 1 Forward Fuselage, Block 2 Forward Fuselage, Inner Wing Panel (Pre-CRI), Inner Wing Panel (CRI), Outer Wing Panel (Pre-CRI), Outer Wing Panel (CRI), Center Fuselage, Aft Fuselage, Vertical Tail, Hydraulic Systems, Landing Gear Systems, Fuel Delivery Systems, Environmental Control Systems, and Mechanical Systems. The unacceptable alternative to retrofitting would be the failure to reach full fatigue life for these aircraft and to not correct the structural defects discovered on fatigue test articles. In many cases, the mission capability of the aircraft would be adversely affected in addition to its reduced service life. As a result, aircraft may be prematurely removed from useful service. SLAP analyzes the critical structural and sub-system areas to determine crack initiation. Service Life Extension Program (SLEP) will transition into a full turn-key operation to install SLEP kits, safety of flight technical directives(TDs) and other relevant TDs, funded from other OSIPs to achieve the Service Life Modification (SLM). The aircraft will be inducted by the Original Equipment Manufacturer (OEM) and returned to the fleet as a fully modified aircraft with an extended service life to achieve fleet missions. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Currently all Lot 21 through 41 aircraft have service life limits established by the F/A-18 and EA-18G Service Life Bulletin without the service life management plan modifications to extended the service life. The OEMs are currently performing structures and sub-systems SLAP. As SLAP analysis is completed, "hot spots" are reviewed to determine the best approach for extending specific areas of concern. Until FY18, NRE for service life modifications were grouped into one of five series of Zonal ECPs (6465, 6466, 6467, 6468, and 6469) according to aircraft block and location. Zonal ECP NRE will continue through FY22, and subsystems ECPs beyond; but starting in FY18 will begin a transition to a holistic SLM effort based on the entire aircraft. In an effort to reduce exigent procurement lead times and resulting high out-of-reporting rates associated with traditional, disparate piece part kit procurements and installation, SLM relies on a turn-key approach utilizing the OEM to extend aircraft service life. SLM includes all material / kit and labor / installation costs to modify service life from 6,000 flight hours to 7,500 flight hours. NRE will continue until a SLEP full kit is developed and the aircraft service life will be extended to 9,000 flight hours.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18E/F and EA-18G				Modification Type: SAFETY / LIFE EXTENSION				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years Qty (Each) / Total Cost (\$ M)	FY 2018 Qty (Each) / Total Cost (\$ M)	FY 2019 Qty (Each) / Total Cost (\$ M)	FY 2020 Base Qty (Each) / Total Cost (\$ M)	FY 2020 OCO Qty (Each) / Total Cost (\$ M)	FY 2020 Total Qty (Each) / Total Cost (\$ M)	FY 2021 Qty (Each) / Total Cost (\$ M)	FY 2022 Qty (Each) / Total Cost (\$ M)	FY 2023 Qty (Each) / Total Cost (\$ M)	FY 2024 Qty (Each) / Total Cost (\$ M)	To Complete Qty (Each) / Total Cost (\$ M)	Total Qty (Each) / Total Cost (\$ M)	
Procurement													
1.1.1) ECP-6465 Block 1 Forward Fuselage - NonOrganic <i>Installation 1 of 2</i>	4 / 0.159	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.159	
1.1.2) ECP-6469: Inner Wing Panel (Pre-CRI) - NonOrganic <i>Installation 2 of 2</i>	2 / 7.435	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 7.435	
1.1.3) ECP-6469: Outer Wing Panel (Pre-CRI) - NonOrganic <i>Installation 2 of 2</i>	2 / 0.064	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.064	
1.1.4) Service Life Extension (SLEP) kits - Organic ^(*) (70)	- / -	4 / 28.454	9 / 72.160	15 / 100.432	- / -	15 / 100.432	25 / 153.611	36 / 210.996	44 / 427.032	40 / 349.339	477 / 2,525.047	650 / 3,867.071	
1.2.1) Installation Kit N/R - Organic ^(*) (71)	- / 57.528	- / 37.121	- / 56.588	- / 13.597	- / -	- / 13.597	- / 14.290	- / 12.149	- / 13.714	- / 16.917	- / 75.281	- / 297.185	
Subtotal: Procurement	- / 65.186	- / 65.575	- / 128.748	- / 114.029	- / -	- / 114.029	- / 167.901	- / 223.145	- / 440.746	- / 366.256	- / 2,600.328	- / 4,171.914	
Support													
3.2) Data	- / 5.808	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.808	
3.4) Support Equipment	- / 0.074	- / 0.385	- / 0.392	- / 0.368	- / -	- / 0.368	- / 0.375	- / 0.382	- / 0.388	- / 0.395	- / -	- / 2.759	
3.5) Inventory Modeling	- / -	- / 3.037	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.037	
3.6) ILS	- / 2.561	- / 1.216	- / 1.691	- / 1.721	- / -	- / 1.721	- / 1.752	- / 1.784	- / 1.816	- / 1.849	- / 9.755	- / 24.145	
3.7) Other Support	- / 6.389	- / 19.856	- / 19.565	- / 17.449	- / -	- / 17.449	- / 17.773	- / 18.103	- / 18.468	- / 18.800	- / 214.802	- / 351.205	
Subtotal: Support	- / 14.832	- / 24.494	- / 21.648	- / 19.538	- / -	- / 19.538	- / 19.900	- / 20.269	- / 20.672	- / 21.044	- / 224.557	- / 386.954	
Installation													
Installation 1 of 2: ECP-6465 Block 1 Forward Fuselage	- / -	- / 0.155	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.155	
Installation 2 of 2: GRP: SLEP Installs (1 year leadtime)	- / -	- / -	- / 0.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.190	
Subtotal: Installation	- / 0.000	- / 0.155	- / 0.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.345	
Total													
Total Cost (Procurement + Support + Installation)	80.018	90.224	150.586	133.567	0.000	133.567	187.801	243.414	461.418	387.300	2,824.885	4,559.213	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: ECP-6465 Block 1 Forward Fuselage																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECP-6465															Manufacturer Location: St Louis, MO																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 20																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: ECP-6465 Block 1 Forward Fuselage																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.155		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.155					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		4 / 0.155		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.155					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Out	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 19 / F/A-18E/F and EA-18G SLEP (OSIP 020-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: GRP: SLEP Installs (1 year leadtime)																															
Manufacturer Information																															
Manufacturer Name: Boeing - SLEP ECPs (1 yr leadtime)															Manufacturer Location: St Louis, MO																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 24																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Drive-In Modification:: Installation Name: SLEP Installs (1 year leadtime)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		4 / 0.190		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.190								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		4 / 0.190		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.190								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Footnotes: ⁽⁷⁰⁾ Unit cost varies based on the mix of aircraft planned for induction. ⁽⁷¹⁾ NRE is required in future years due to development of multiple ECPs as locations of the aircraft are determined to need extension. Each structural zone ECP will require multiple revisions for multiple requirements. Each of these efforts will require NRE. FY18-FY19 SLM NRE increased cost is due to stand up of two sites. FY21 NRE increase is due to a third site stand up.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 20 / Priority Stores Integration (OSIP 10-16)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	23.359	11.316	8.495	8.730	0.000	8.730	9.936	10.510	14.542	12.380	31.872	131.140
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	23.359	11.316	8.495	8.730	0.000	8.730	9.936	10.510	14.542	12.380	31.872	131.140
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	23.359	11.316	8.495	8.730	0.000	8.730	9.936	10.510	14.542	12.380	31.872	131.140
<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 purpose of this Operational Safety Improvement Program (OSIP) is to facilitate aircraft capability upgrades to carry priority stores for F/A-18A-F and EA-18G aircraft. Priority Stores Integration contains fleet required air to air and air to ground weapon configurations upgrades to support fleet requirements. This OSIP will provide for F/A-18A-F and EA-18G aircraft weapon systems software and aeromechanical hardware upgrades needed during fleet operations to ensure that mission readiness and safety of flight regimes are maintained. It will also allow for weapon capability expansion through engineering, logistics, obsolescence updates and verification and validation of incorporated engineering changes. Specifically, this will provide mission flexibility by updating System Configuration Set (SCS) software in response to weapon software upgrades and weapon carriage and release characteristics. Hardware and software modifications may be incorporated for the following efforts: Universal Armament Interface (UAI), Air Intercept Missile (AIM)-7, AIM-120, AIM-9, Joint Standoff Weapon (JSOW), Joint Direct Attack Munition (JDAM), Laser JDAM (LJDAM), Guided Bomb Unit (GBU)-10/12/16/24 , Harpoon, Standoff Land Attack Missile Extended Range (SLAM-ER), underwater time bomb mines, aerial weapon fuzes, High Speed Anti-Radiation Missile (HARM), Advanced Anti-Radiation Guided Missile (AARGM), aircraft rocket systems, Advanced Guided Missile (AGM)-65 Maverick, M61 aerial rotary cannon, ALQ-99, ALQ-218, ALE-43, Cluster Bomb Units (CBUs), aerial countermeasure flares and smoke emitters, General Purpose (GP) bombs, Laser Guided Training Rounds (LGTRs), Small Diameter Bomb (SDB)-II, the Offensive Anti Surface Warfare (OASuW), Long Range Antiship Missile (LRASM), Miniature Air Launched Decoy (MALD), Next Generation Jammer (NGJ) pod, Bomb Releasable Unit (BRU)-32, BRU-55, Launcher Ariel Unit (LAU)-127, LAU-116, LAU-115, LAU-117, LAU-118, Adapter Unit (ADU)-773, SUU-62, SUU-63, SUU-78, SUU-79 and the SUU-80. This OSIP will provide aircraft platform growth flexibility with all upgrades to existing weapons, future weapons, and weapon subsystem upgrades to F/A-18A-F and EA-18G aircraft. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Weapons are procured with Weapons Procurement, Navy (WPN) funding. Hardware and software modifications to the aircraft in order to utilize the weapons are funded with APN-5.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series				Modification Number / Title: 20 / Priority Stores Integration (OSIP 10-16)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: F/A-18A-F and EA-18G				Modification Type: CAPABILITY IMPROVEMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Priority Stores Integration (OSIP 10-16)													
A Kits													
Recurring													
1.1.1) ECP 87S1 / ECP 437 - SUU-63 - Organic	- / -	70 / 5.900	50 / 3.843	45 / 3.215	- / -	45 / 3.215	- / -	- / -	- / -	- / -	- / -	165 / 12.958	
1.1.2) ECP XXXF - SUU-80 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	150 / 1.116	185 / 1.419	210 / 1.869	65 / 0.653	- / -	610 / 5.057	
1.1.3) ECPXXG - M61 Gun - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 3.323	25 / 6.526	- / -	39 / 9.849	
Subtotal: Recurring	- / 0.000	- / 5.900	- / 3.843	- / 3.215	- / -	- / 3.215	- / 1.116	- / 1.419	- / 5.192	- / 7.179	- / 0.000	- / 27.864	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / -	- / 5.495	- / -	- / -	- / -	- / 5.995	
Subtotal: Non-Recurring	- / 0.000	- / -	- / -	- / 0.500	- / -	- / 0.500	- / -	- / 5.495	- / -	- / -	- / 0.000	- / 5.995	
B Kits													
Recurring													
2.1.1) 31C (SCS) - Organic	- / -	- / -	- / 1.119	- / 0.891	- / -	- / 0.891	- / -	- / -	- / -	- / -	- / -	- / 2.010	
2.1.2) H16 (SCS) - Organic	- / 7.323	- / 4.952	- / 2.869	- / 3.446	- / -	- / 3.446	- / 4.740	- / -	- / -	- / -	- / -	- / 23.330	
2.1.3) H18 (SCS) - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.910	- / 1.308	- / 3.443	- / -	- / -	- / 6.661	
2.1.4) H20 (SCS) - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.007	- / 1.084	- / 3.529	- / -	- / -	- / 5.620	
2.1.5) H22 (SCS) - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.472	- / 0.499	- / 1.659	- / 4.467	- / 28.205	- / 35.302	
Subtotal: Recurring	- / 7.323	- / 4.952	- / 3.988	- / 4.337	- / -	- / 4.337	- / 8.129	- / 2.891	- / 8.631	- / 4.467	- / 28.205	- / 72.923	
Subtotal: Priority Stores Integration (OSIP 10-16)	- / 7.323	70 / 10.852	50 / 7.831	45 / 8.052	- / -	45 / 8.052	150 / 9.245	185 / 9.805	224 / 13.823	90 / 11.646	- / 28.205	814 / 106.782	
Subtotal: Procurement, All Modification Items	- / 7.323	- / 10.852	- / 7.831	- / 8.052	- / -	- / 8.052	- / 9.245	- / 9.805	- / 13.823	- / 11.646	- / 28.205	- / 106.782	
Support (All Modification Items)													
3.5) ILS	- / 0.184	- / 0.021	- / 0.212	- / 0.217	- / -	- / 0.217	- / 0.221	- / 0.225	- / 0.230	- / 0.235	- / 1.173	- / 2.718	
3.6) Other Support	- / 15.852	- / 0.443	- / 0.452	- / 0.461	- / -	- / 0.461	- / 0.470	- / 0.480	- / 0.489	- / 0.499	- / 2.494	- / 21.640	
Subtotal: Support	- / 16.036	- / 0.464	- / 0.664	- / 0.678	- / -	- / 0.678	- / 0.691	- / 0.705	- / 0.719	- / 0.734	- / 3.667	- / 24.358	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	23.359	11.316	8.495	8.730	0.000	8.730	9.936	10.510	14.542	12.380	31.872	131.140	

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Exhibit P-3a, Individual Modification: PB 2020 Navy				Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1		P-1 Line Item Number / Title: 0525 / F-18 Series			Modification Number / Title: 20 / Priority Stores Integration (OSIP 10-16)		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: Priority Stores Integration (OSIP 10-16)							
Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 21 / Physiological Episode (PE) Mitigation (OSIP 13-19)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	30.856	107.447	0.000	107.447	83.565	52.531	35.895	36.052	25.600	371.946
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	30.856	107.447	0.000	107.447	83.565	52.531	35.895	36.052	25.600	371.946
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	30.856	107.447	0.000	107.447	83.565	52.531	35.895	36.052	25.600	371.946
<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: This Operational, Safety and Improvement Program (OSIP) funds modifications to mitigate aircrew Physiological Episodes (PE) in F/A-18 A-F and E/A-18G by correcting aircraft deficiencies and addressing safety and reliability issues via Engineering Change Proposals (ECPs). All aircraft systems that contribute to aircrew life support can be causal factors in physiological events. This includes the Onboard Oxygen Generating System (OBOGS) and all associated piping, valves, and monitors, the Environmental Control System (ECS) and all associated ducting, valves, and sensors, hardware and software, and aircrew alerting systems to provide cautions and warning of failures or potential hazards. Modifications to the aircraft will focus on addressing the highest likelihood causal factors for PEs. This includes the ECS system and cockpit structural improvements to improve the stability and control of cabin pressurization. It also includes OBOGS hardware and software improvements, including all aircraft and aircrew gear used to deliver and monitor breathing gas to ensure aircrew are receiving the optimized levels of oxygen during all regimes of flight, to include the possibility of a new MILSTAN 3050 compliant oxygen concentrator. This OSIP also addresses all aircrew flight gear that could affect aircrew performance and/or physiology prior to or during flight. Modifications will include Expanded Emergency Oxygen System and Automatic Backup Oxygen System (ABOS) to provide seamless delivery of oxygen to aircrew during emergency operations or systems failure; cabin altitude monitoring and alerting to warn aircrew to hazardous conditions or systems failures, including the Cabin Pressure and Monitoring Systems (CPOMS); and air quality monitoring and filtration systems to ensure adequacy and purity of aircrew breathing gas. Development Status/Major Milestones: Each change has been or will be tested prior to installation into the F-18 A-F and E/A-18G. ECPs (6416, 6477, 6478, and 6488) for PE efforts are realigned from OSIP 14-03 to OSIP 13-19 beginning in FY19.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 21 / Physiological Episode (PE) Mitigation (OSIP 13-19)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: F-18 A-F and E/A-18G			Modification Type: Safety					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) ECP-6477 ECS Item 001 Primary Bleed Air Pressure Regulator & shutoff - Organic ^(*) (72)	- / -	- / -	200 / 7.002	200 / 7.159	- / -	200 / 7.159	- / -	- / -	- / -	- / -	- / -	400 / 14.161
1.1.2) ECP-6478 ECS Items 51 & 26 Improvements - Organic ^(*) (73)	- / -	- / -	360 / 0.502	360 / 3.031	- / -	360 / 3.031	360 / 3.374	360 / 1.810	- / -	- / -	- / -	1,440 / 8.717
1.1.3) ECP 6488 - Secondary Bleed air regulator & Shut Off Valve Improvement - Organic ^(*)	- / -	- / -	457 / 5.189	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	457 / 5.189
1.1.4) ECP-23650 (EEOS) - Organic ^(*)	- / -	- / -	360 / 5.480	790 / 37.731	- / -	790 / 37.731	500 / 24.949	- / -	- / -	- / -	- / -	1,650 / 68.160
1.1.5) ECP 6416 Environment Control Sys Anti-Ice Duct Bracket - NonOrganic Installation 1 of 1	- / -	- / -	77 / 0.762	78 / 0.786	- / -	78 / 0.786	- / -	- / -	- / -	- / -	- / -	155 / 1.548
1.1.6) GGU-XX Procurement - Organic ^(*)	- / -	- / -	160 / 1.995	360 / 23.231	- / -	360 / 23.231	360 / 23.550	360 / 21.960	160 / 8.640	160 / 8.640	- / -	1,560 / 88.016
Subtotal: Procurement	- / 0.000	- / -	- / 20.930	- / 71.938	- / -	- / 71.938	- / 51.873	- / 23.770	- / 8.640	- / 8.640	- / 0.000	- / 185.791
Support												
3.4) Support Equipment (74)	- / -	- / -	- / 3.034	- / 13.000	- / -	- / 13.000	- / 5.000	- / 2.000	- / -	- / -	- / -	- / 23.034
3.5) ILS	- / -	- / -	- / 0.151	- / 0.307	- / -	- / 0.307	- / 0.600	- / 0.618	- / 0.632	- / 0.661	- / 0.600	- / 3.569
3.6) Other Support (75)	- / -	- / -	- / 6.741	- / 22.202	- / -	- / 22.202	- / 26.092	- / 25.610	- / 26.073	- / 26.751	- / 25.000	- / 158.469
Subtotal: Support	- / 0.000	- / -	- / 9.926	- / 35.509	- / -	- / 35.509	- / 31.692	- / 28.228	- / 26.705	- / 27.412	- / 25.600	- / 185.072
Installation												
Installation 1 of 1: ECP 6416 Environment Control Sys Anti-Ice Duct Bracket	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.533	- / 0.550	- / -	- / 0.000	- / 1.083
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.533	- / 0.550	- / -	- / 0.000	- / 1.083
Total												
Total Cost (Procurement + Support + Installation)	0.000	0.000	30.856	107.447	0.000	107.447	83.565	52.531	35.895	36.052	25.600	371.946

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0525 / F-18 Series										Modification Number / Title: 21 / Physiological Episode (PE) Mitigation (OSIP 13-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: ECP 6416 Environment Control Sys Anti-Ice Duct Bracket																															
Manufacturer Information																															
Manufacturer Name: Boeing - ECPs 6416 Environmental Control Sys Anti-Ice Duct Bracket															Manufacturer Location: Not Specified..																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 25																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Sep 2019				Sep 2020																					
Delivery Dates						Oct 2021				Oct 2022																					
Installation Information																															
Method of Implementation: Navy Drive In Mod NI:: Installation Name: ECP 6416 Environment Control Sys Anti-Ice Duct Bracket																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		77 / 0.533		- / -		- / -		0 / 0.000		77 / 0.533								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		78 / 0.550		- / -		0 / 0.000		78 / 0.550								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		77 / 0.533		78 / 0.550		- / -		0 / 0.000		155 / 1.083								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	20	19	19	20	20	-	-	-	-	-	155
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	20	19	19	20	20	-	-	-	-	-	155
Footnotes: ⁽⁷²⁾ In FY18 and prior, kits were procured in OSIP 14-03. In FY19 and later, kits and installs are in OSIP 13-19 for better visibility. ⁽⁷³⁾ In FY18 and prior, kits were procured in OSIP 14-03. In FY19 and later, kits and installs are in OSIP 13-19 for better visibility.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0525 / F-18 Series	Modification Number / Title: 21 / Physiological Episode (PE) Mitigation (OSIP 13-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(74) Funding in support of ECS In-Flow Lab (75) Other Support funding increases in FY19 and FY20 due to ramp up of PE efforts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series						Modification Number / Title: 22 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	265.409	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	265.409
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	265.409	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	265.409
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	265.409	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	265.409
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0525 / F-18 Series					Modification Number / Title: 22 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.2.1) Inactive OSIPs - Organic ^(*)	- / 265.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 265.409	
Subtotal: Procurement	- / 265.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 265.409	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	265.409	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	265.409	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0528 / H-53 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,599.791	39.125	70.997	68.385	0.000	68.385	98.008	164.963	224.360	196.573	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,599.791	39.125	70.997	68.385	0.000	68.385	98.008	164.963	224.360	196.573	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,599.791	39.125	70.997	68.385	0.000	68.385	98.008	164.963	224.360	196.573	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: H-53 Series line item funds modifications to the 142 CH-53E aircraft and to the 29 MH-53E aircraft. The aircraft inventories to be modified vary by Operational, Safety, and Improvement Program, dependent on kit modification production lead-time. The CH-53E is a seven blade main rotor and a four-blade canted tail rotor helicopter powered by three T64-GE-416/416A/419/419A turbo shaft engines. The CH-53E aircraft are capable of both land and ship based transport of heavy equipment, supplies, and personnel. The MH-53E is similar to the CH-53E with additional capabilities for Airborne Mine Countermeasures, Vertical On-Board Delivery, and Special Missions which require longer range and more precise navigation than that of the CH-53E. The overall goal of the modifications budgeted in FY20 is increased communication and navigation, integrated mechanical diagnostics and condition based maintenance, propulsion and power, degraded visual environment mitigation, survivability and sustainment initiatives, and fleet operation and safety performance in the H-53 community. This line item also funds the CH-53K "King Stallion" modifications. The CH-53K is designed to address CH-53E performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns and support Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment, and is the only heavy-lift platform that can lift the Marine Air-Ground Task Force ashore. The CH-53K provides significant improvements in range and payload, performance, cargo handling, turn-around times, reliability and maintainability, interoperability and survivability.												
Notes: 1. Navy active and Navy reserve: CH-53E: 136 active and 6 reserve aircraft ; MH-53E: 23 active and 6 reserve aircraft comprise the H-53 fleet. Navy active and Navy reserve funds have been budgeted to provide capability to all 171 H-53 aircraft.												
Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024		
Navy	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	34.506	70.272	67.866	-	67.866	96.987	163.581	223.321	195.513		
NR	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	4.619	0.725	0.519	-	0.519	1.021	1.382	1.039	1.060		
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	39.125	70.997	68.385	-	68.385	98.008	164.963	224.360	196.573		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0528 / H-53 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / INTEGRATED MECH DIAG (OSIP 007-98) (SAFETY, READINESS, AND MAINTAINABILITY)				- / 176.484	- / 4.114	- / 6.196	- / 2.284	- / 0.000	- / 2.284
P-3a	2 / NACELLES (OSIP 009-01) (MISSION/MISSION ENHANCEMENT)				- / 45.970	- / 1.944	- / 6.833	- / 10.506	- / 0.000	- / 10.506
P-3a	3 / H-53 ERIP (OSIP 010-05) (SAFETY, READINESS AND MAINTAINABILITY)				- / 190.843	- / 0.000	- / 6.264	- / 10.700	- / 0.000	- / 10.700
P-3a	4 / H-53 A/C SUSTAINMENT (OSIP 008-06) (MISSION/ PERFORMANCE SUSTAINMENT)				- / 277.632	- / 13.891	- / 25.099	- / 9.027	- / 0.000	- / 9.027
P-3a	5 / DIRCM (OSIP 010-08) (MISSION/PERFORMANCE SUSTAINMENT)				- / 208.512	- / 0.872	- / 0.052	- / 0.000	- / 0.000	- / 0.000
P-3a	6 / H-53 AVIONICS (OSIP 031-12) (MISSION/PERFORMANCE SUSTAINMENT)				- / 66.044	- / 18.304	- / 7.521	- / 7.996	- / 0.000	- / 7.996
P-3a	7 / Correction of Deficiencies (OSIP 007-19) (Safety, Reliability, Improved Mission Capability)			390	- / 0.000	- / 0.000	- / 11.010	- / 17.703	- / 0.000	- / 17.703
P-3a	8 / CH-53K Production Upgrades (OSIP 008-19) (Mission Capability, Reliability, Safety)				- / 0.000	- / 0.000	- / 8.022	- / 10.169	- / 0.000	- / 10.169
P-3a	9 / Archived OSIPS (Various)				- / 634.306	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,599.791	- / 39.125	- / 70.997	- / 68.385	- / 0.000	- / 68.385
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / INTEGRATED MECH DIAG (OSIP 007-98) (SAFETY, READINESS, AND MAINTAINABILITY)				- / 7.462	- / 4.260	- / 3.223	- / 1.045	Continuing	Continuing
P-3a	2 / NACELLES (OSIP 009-01) (MISSION/MISSION ENHANCEMENT)				- / 0.776	- / 0.791	- / 0.132	- / 0.000	- / 0.000	- / 66.952
P-3a	3 / H-53 ERIP (OSIP 010-05) (SAFETY, READINESS AND MAINTAINABILITY)				- / 42.008	- / 100.950	- / 150.620	- / 131.700	Continuing	Continuing
P-3a	4 / H-53 A/C SUSTAINMENT (OSIP 008-06) (MISSION/ PERFORMANCE SUSTAINMENT)				- / 12.849	- / 17.751	- / 19.604	- / 25.349	Continuing	Continuing
P-3a	5 / DIRCM (OSIP 010-08) (MISSION/PERFORMANCE SUSTAINMENT)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 209.436
P-3a	6 / H-53 AVIONICS (OSIP 031-12) (MISSION/PERFORMANCE SUSTAINMENT)				- / 11.246	- / 11.900	- / 14.455	- / 12.787	Continuing	Continuing
P-3a	7 / Correction of Deficiencies (OSIP 007-19) (Safety, Reliability, Improved Mission Capability)			390	- / 17.876	- / 25.469	- / 31.187	- / 24.877	Continuing	Continuing
P-3a	8 / CH-53K Production Upgrades (OSIP 008-19) (Mission Capability, Reliability, Safety)				- / 5.791	- / 3.842	- / 5.139	- / 0.815	Continuing	Continuing
P-3a	9 / Archived OSIPS (Various)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 634.306
P-40	Total Gross/Weapon System Cost				- / 98.008	- / 164.963	- / 224.360	- / 196.573	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 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0528 / H-53 Series
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		
Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.		
Justification: The FY2020 funding request is for the CH/MH-53E and CH-53K platforms for critical safety, readiness, obsolescence, avionics, and mission system modifications. Funding supports modifications to upgrade top age related engine degraders, fatigue limiters, and performance degraders on the T-64 Engine; reliability and readiness efforts including new T64 core engines and fuel control retrofits. The FY2020 funding request was reduced by \$3.764M to account for the availability of prior year execution balances.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 1 / INTEGRATED MECH DIAG (OSIP 007-98)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	176.484	4.114	6.196	2.284	0.000	2.284	7.462	4.260	3.223	1.045	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	176.484	4.114	6.196	2.284	0.000	2.284	7.462	4.260	3.223	1.045	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	176.484	4.114	6.196	2.284	0.000	2.284	7.462	4.260	3.223	1.045	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:

Integrated Mechanical Diagnostics (IMD) is a helicopter monitoring and diagnostics system that provides continuous on board monitoring and diagnostics of engine health, gearbox and drive train vibrations, oil debris, Rotor Track and Balance (RTB). Full incorporation of the IMD system capabilities will allow rapid transition from the current costly philosophies of the 70s to today's cost wise initiatives and concepts. Lessons learned from this effort were incorporated into the solicitation for the fleet wide IMD effort with CH/MH-53E aircraft designated as the lead platforms. IMD produces the aircraft interface required to implement Military Flight Operations Quality Assurance (MFOQA), a capability designed to provide hazard monitoring and mitigation. Additionally, IMDS includes support equipment for RTB, including Virtual Master Blade System (VMBS). Condition Based Maintenance (CBM) is hosted within the aircraft IMDS/Health and Usage Monitoring System (HUMS), intended to direct maintenance by predicting failures based on real-time assessment of equipment condition obtained from Integrated Mechanical Diagnostics System (IMDS) embedded sensors.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Advanced diagnostics enhancements and airframe structural life extension database interfaces are being incorporated to provide comprehensive platform operational and maintenance status awareness to the Squadron Commanders and key decision makers.

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP decreases \$3.912M from FY2019 to FY2020 due to decreased number of IMDS retrofits. FY2020 funding is required for CBM installation equipment procurements, CBM required support, and required H-53 installations.

Notes:

1. Prior Year totals have been updated to reflect corrected quantities and dollar values that were archived since PB19 budget submission.
2. Cost Element 1.1.1 MH-53E Kits - Four additional kits are being procured in FY19 to support the four Reconstitutionalized MH-53E A/C.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 1 / INTEGRATED MECH DIAG (OSIP 007-98)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 1771 Total				Modification Type: SAFETY, READINESS, AND MAINTAINABILITY				Related RDT&E PEs:					
Financial Plan		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
(*) Indicates the modification is being installed organically and no installation funds are required.		Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (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													
1.1.1) MH-53E Kits (A-kits) - NonOrganic ⁽¹⁾ <i>Installation 1 of 2</i>		29 / 9.995	- / -	4 / 1.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 11.395
1.1.2) IMDS IVHMU - NonOrganic <i>Installation 2 of 2</i>		- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.678	10 / 1.974	6 / 1.208	- / -	- / -	35 / 6.860
1.1.3) Archived A Kits OSIP 007-98 - Organic ^(*)		- / 64.768	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 64.768
1.2.1) IMDS - IVHMU - Organic ^(*)		- / -	- / -	- / -	- / -	- / -	- / -	- / 1.697	- / 0.312	- / -	- / -	- / -	- / 2.009
2.1.1) CBM Installation Equipment - Organic ^{(*) (2)}		- / 11.550	- / 2.402	- / 3.502	- / 1.051	- / -	- / 1.051	- / 0.850	- / 0.867	- / 0.884	- / -	- / -	- / 21.106
2.1.2) CBM Installation Equipment - Reserve - Organic ^(*)		- / 1.850	- / 0.077	- / 0.146	- / 0.044	- / -	- / 0.044	- / 0.034	- / 0.035	- / 0.035	- / -	- / -	- / 2.221
2.1.3) Archived B Kits - Organic ^(*)		31 / 2.448	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 2.448
Subtotal: Procurement		- / 90.611	- / 2.479	- / 5.048	- / 1.095	- / -	- / 1.095	- / 6.259	- / 3.188	- / 2.127	- / -	- / 0.000	- / 110.807
Support													
3.1) Engineering Change Orders		- / 0.217	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.217
3.2) Data		- / 1.618	- / -	- / 0.021	- / 0.020	- / -	- / 0.020	- / 0.290	- / 0.204	- / 0.262	- / 0.268	- / -	- / 2.683
3.3) Data - Reserve		- / 0.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.143
3.4) Software		- / 6.591	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.591
3.5) Training Equipment		2 / 0.750	- / -	- / 0.008	- / 0.020	- / -	- / 0.020	- / 0.150	- / 0.153	- / 0.156	- / 0.159	- / -	2 / 1.396
3.6) Training Equipment - Reserve		- / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.050
3.7) Support Equipment		- / 3.034	- / -	- / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.039
3.8) Condition Based Maint (CBM)		- / 2.922	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.922
3.9) ILS		- / 4.551	- / 0.220	- / 0.123	- / 0.115	- / -	- / 0.115	- / 0.100	- / 0.102	- / 0.104	- / 0.106	Continuing	Continuing
3.10) ILS - Reserve		- / 0.358	- / 0.011	- / 0.005	- / 0.005	- / -	- / 0.005	- / 0.005	- / 0.005	- / 0.005	- / 0.005	Continuing	Continuing
3.11) Other Support - Reserve		- / 2.248	- / 0.051	- / 0.039	- / 0.028	- / -	- / 0.028	- / 0.020	- / 0.020	- / 0.021	- / 0.021	Continuing	Continuing
3.12) Other Support		- / 59.462	- / 1.353	- / 0.947	- / 0.641	- / -	- / 0.641	- / 0.399	- / 0.459	- / 0.469	- / 0.486	Continuing	Continuing
Subtotal: Support		- / 81.944	- / 1.635	- / 1.148	- / 0.829	- / -	- / 0.829	- / 0.964	- / 0.943	- / 1.017	- / 1.045	Continuing	Continuing
Installation													
Installation 1 of 2: MH-53E Kits (A-kits)		- / 3.929	- / -	- / -	- / 0.360	- / 0.000	- / 0.360	- / -	- / -	- / -	- / -	- / 0.000	- / 4.289
Installation 2 of 2: GRP: H-53 IVHMU		- / -	- / -	- / -	- / -	- / -	- / -	- / 0.239	- / 0.129	- / 0.079	- / -	- / 0.000	- / 0.447
Subtotal: Installation		- / 3.929	- / -	- / -	- / 0.360	- / -	- / 0.360	- / 0.239	- / 0.129	- / 0.079	- / -	- / 0.000	- / 4.736
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 1 / INTEGRATED MECH DIAG (OSIP 007-98)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 1771 Total					Modification Type: SAFETY, READINESS, AND MAINTAINABILITY					Related RDT&E PEs:			
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	176.484	4.114	6.196	2.284	0.000	2.284	7.462	4.260	3.223	1.045	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 1 / INTEGRATED MECH DIAG (OSIP 007-98)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: MH-53E Kits (A-kits)																															
Manufacturer Information																															
Manufacturer Name: Goodrich-MH															Manufacturer Location: Vergennes, VT																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019																									
Delivery Dates						Oct 2019																									
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: MH-53E Kits (A-kits)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		29 / 3.929		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		29 / 3.929					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		4 / 0.360		0 / 0.000		4 / 0.360		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.360					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		29 / 3.929		- / -		- / -		4 / 0.360		0 / 0.000		4 / 0.360		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		33 / 4.289			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	29	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Out	29	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 1 / INTEGRATED MECH DIAG (OSIP 007-98)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: GRP: H-53 IVHMU																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jan 2021				Jan 2022				Jan 2023									
Delivery Dates														Jun 2021				Jun 2022				Jun 2023									
Installation Information																															
Method of Implementation: CONTRACTOR INSTALLED-FIELD MOD TEAM:: Installation Name: H-53 IVHMU																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.239	- / -	- / -	- / -	0 / 0.000	19 / 0.239																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.129	- / -	- / -	0 / 0.000	10 / 0.129																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.079	- / -	0 / 0.000	6 / 0.079																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.239	10 / 0.129	6 / 0.079	- / -	0 / 0.000	35 / 0.447																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	9	-	-	5	5	-	-	3	3	-	-	-	-	-	35
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	9	-	-	5	5	-	-	3	3	-	-	-	-	-	35
Footnotes: (1) Cost Element 1.1.1 MH-53E Kits - of the 31 procured, 2 installed kits (OCO) have been archived, leaving 29 Kits - only 28 of the 29 are installing due to mishap. Included in the remaining 28 installs is 1 trainer kit (FY13). (2) Cost Element 2.1.1 CBM contract award occurs in FY19 causing increase in funding.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 2 / NACELLES (OSIP 009-01)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	45.970	1.944	6.833	10.506	0.000	10.506	0.776	0.791	0.132	0.000	0.000	66.952
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	45.970	1.944	6.833	10.506	0.000	10.506	0.776	0.791	0.132	0.000	0.000	66.952
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	45.970	1.944	6.833	10.506	0.000	10.506	0.776	0.791	0.132	0.000	0.000	66.952
<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:

DESCRIPTION/JUSTIFICATION: The CH/MH-53E Number 1 & Number 3 engine Nacelles are a safety risk due to Things Falling Off Aircraft (TFOA). TFOA incidents risk damage to the aircraft, threaten aircrew safety, and could potentially impact personnel and/or property on the ground. To date, 84 TFOA events have occurred and of the 84, 10 have impacted the tail rotor. New CH/MH-53E Nacelles incorporates improved material properties, design and positive locking/latching mechanisms to prevent TFOA. The procurement improves fleet safety and readiness.

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP increases \$3.673M from FY2019 to FY2020 to complete procurement of CH/MH-53E Nacelles to support fleet safety and readiness.

Notes:

1. Due to increasing complexity of the Nacelles install, installs will be performed by contractor field mod team. Prior year installs were organic.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0528 / H-53 Series						Modification Number / Title: 2 / NACELLES (OSIP 009-01)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E(142), MH-53E(29), 171 TOTAL			Modification Type: MISSION/MISSION ENHANCEMENT					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) MH-53E Backbone A Kits - Organic ^(*)	- / -	19 / 0.139	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.139	
1.1.2) MH-53E Backbone A Kits - Reserve - Organic ^(*)	- / -	1 / 0.007	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.007	
1.1.3) CH-53E Backbone A Kits - Organic ^(*)	48 / 0.551	104 / 0.760	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	152 / 1.311	
1.1.4) CH-53E Backbone A Kits - Reserve - Organic ^(*)	- / -	6 / 0.044	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.044	
1.1.5) MH-53E Kit - NonOrganic Installation 1 of 2	24 / 5.790	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 5.790	
1.1.6) MH-53E Kits - Reserve - NonOrganic Installation 1 of 2	2 / 0.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.497	
1.1.7) CH-53E KITS (Nacelles) - NonOrganic Installation 2 of 2	80 / 16.488	- / -	26 / 5.650	44 / 9.743	- / -	44 / 9.743	- / -	- / -	- / -	- / -	- / -	150 / 31.881	
1.1.8) CH-53E KITS - (Nacelles) Reserve - NonOrganic Installation 2 of 2	- / -	- / -	2 / 0.435	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.435	
1.1.9) Archived A Kits OSIP 09-01 - Organic ^(*)	46 / 8.446	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 8.446	
2.1.1) Non-Recurring - Organic ^(*)	- / 0.540	- / 0.292	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.832	
Subtotal: Procurement	- / 32.312	- / 1.242	- / 6.085	- / 9.743	- / -	- / 9.743	- / -	- / -	- / -	- / -	- / 0.000	- / 49.382	
Support													
3.2) Data	- / 0.177	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.177	
3.4) Support Equipment	- / 3.646	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.646	
3.5) ILS	- / 0.362	- / 0.183	- / 0.038	- / 0.038	- / -	- / 0.038	- / 0.038	- / 0.039	- / 0.039	- / -	- / -	- / 0.737	
3.6) ILS - Reserve	- / 0.092	- / 0.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.096	
3.7) Other Support	- / 9.219	- / 0.508	- / 0.090	- / 0.090	- / -	- / 0.090	- / 0.090	- / 0.091	- / 0.093	- / -	- / -	- / 10.181	
3.8) Other Support - Reserve	- / 0.162	- / 0.007	- / 0.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.173	
Subtotal: Support	- / 13.658	- / 0.702	- / 0.132	- / 0.128	- / -	- / 0.128	- / 0.128	- / 0.130	- / 0.132	- / -	- / 0.000	- / 15.010	
Installation													
Installation 1 of 2: GRP: MH-53 Installs	- / -	- / -	- / 0.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.364	
Installation 2 of 2: GRP: CH-53 Installs	- / -	- / -	- / 0.252	- / 0.635	- / 0.000	- / 0.635	- / 0.648	- / 0.661	- / -	- / -	- / 0.000	- / 2.196	
Subtotal: Installation	- / 0.000	- / -	- / 0.616	- / 0.635	- / -	- / 0.635	- / 0.648	- / 0.661	- / -	- / -	- / 0.000	- / 2.560	
Total													
Total Cost (Procurement + Support + Installation)	45.970	1.944	6.833	10.506	0.000	10.506	0.776	0.791	0.132	0.000	0.000	66.952	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 2 / NACELLES (OSIP 009-01)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 1 of 2: GRP: MH-53 Installs																															
Manufacturer Information																															
Manufacturer Name: Sikorski Aircraft Corp										Manufacturer Location: Stratford, CT																					
Administrative Leadtime <i>(in Months)</i> : 5										Production Leadtime <i>(in Months)</i> : 18																					
Dates	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: MH-53 Installs																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																			
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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	- / -	- / -	26 / 0.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	26 / 0.364																			
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total	- / -	- / -	26 / 0.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	26 / 0.364																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	7	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Out	-	-	-	-	-	7	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0528 / H-53 Series											Modification Number / Title: 2 / NACELLES (OSIP 009-01)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 2 of 2: GRP: CH-53 Installs																																
Manufacturer Information																																
Manufacturer Name: Sikorski Aircraft Corp													Manufacturer Location: Stratford, CT																			
Administrative Leadtime <i>(in Months)</i> : 5													Production Leadtime <i>(in Months)</i> : 18																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Mar 2019				Mar 2020																						
Delivery Dates						Sep 2020				Sep 2021																						
Installation Information																																
Method of Implementation: Contractor Field Mod Team:: Installation Name: CH-53 Installs																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		18 / 0.252		44 / 0.635		0 / 0.000		44 / 0.635		16 / 0.236		- / -		- / -		- / -		0 / 0.000		78 / 1.123								
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		28 / 0.412		- / -		- / -		- / -		0 / 0.000		28 / 0.412								
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		44 / 0.661		- / -		- / -		0 / 0.000		44 / 0.661								
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -		- / -		18 / 0.252		44 / 0.635		0 / 0.000		44 / 0.635		44 / 0.648		44 / 0.661		- / -		- / -		0 / 0.000		150 / 2.196								
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	9	-	-	12	12	10	10	11	11	11	11	11	11	11	11	-	-	-	-	-	-	-	-	-	150	
Out	-	-	-	-	-	9	9	-	-	12	12	10	10	11	11	11	11	11	11	11	11	-	-	-	-	-	-	-	-	-	150	

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 3 / H-53 ERIP (OSIP 010-05)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	190.843	0.000	6.264	10.700	0.000	10.700	42.008	100.950	150.620	131.700	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	190.843	0.000	6.264	10.700	0.000	10.700	42.008	100.950	150.620	131.700	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	190.843	0.000	6.264	10.700	0.000	10.700	42.008	100.950	150.620	131.700	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 T64 Engine Reliability Improvement Program (ERIP) upgrades top age related engine degraders, fatigue limiters, and performance degraders on the T64 engine. The objective is to increase engine reliability and performance by incorporating minor improvements, necessary parts changes and introducing new Core Engine Kits to the fleet. This will be accomplished by standing up both a core engine and fuel control production line. These production lines will produce Core Engine Kits along with ensuring a production line is available for parts procurement/upgrades throughout the remainder of the CH-53E service life.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP increases \$4.436M from FY2019 to FY2020 to fund continuation of T64 fuel control non-recurring engineering efforts and commencement of T64 engine core non-recurring engineering efforts to include creating ECP package and necessary support equipment upgrades.

Notes:

1. Cost Element 1.1.2 and 1.1.3 Kits will be completed via O-level installations.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 3 / H-53 ERIP (OSIP 010-05)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: H-53 T64 Turbo-shaft engines				Modification Type: SAFETY, READINESS AND MAINTAINABILITY				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) T-64 Engine Core - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	5 / 11.500	40 / 84.392	48 / 101.575	52 / 111.795	- / -	145 / 309.262	
1.1.2) T-64 Engine Fuel Control - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.280	49 / 12.742	167 / 44.307	60 / 15.918	- / -	281 / 74.247	
1.1.3) ARCHIVED B KITS - Organic ^(*)	4,221 / 158.246	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4,221 / 158.246	
1.2.1) Non-Recurring Engineering - Organic ^(*)	- / 0.250	- / -	- / 6.114	- / 10.150	- / -	- / 10.150	- / 25.828	- / -	- / -	- / -	- / -	- / 42.342	
<i>Subtotal: Procurement</i>	<i>- / 158.496</i>	<i>- / -</i>	<i>- / 6.114</i>	<i>- / 10.150</i>	<i>- / -</i>	<i>- / 10.150</i>	<i>- / 38.608</i>	<i>- / 97.134</i>	<i>- / 145.882</i>	<i>- / 127.713</i>	<i>- / 0.000</i>	<i>- / 584.097</i>	
Support													
2.2) Data	- / 1.005	- / -	- / -	- / 0.250	- / -	- / 0.250	- / 1.272	- / -	- / -	- / -	- / -	- / 2.527	
2.3) Training Equipment	- / 0.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.004	
2.4) Training Equipment-OCO	- / 0.506	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.506	
2.5) Support Equipment	- / 5.829	- / -	- / -	- / -	- / -	- / -	- / 0.098	- / -	- / -	- / -	- / -	- / 5.927	
2.6) ILS	- / 0.510	- / -	- / 0.050	- / 0.100	- / -	- / 0.100	- / 0.500	- / 1.272	- / 1.507	- / 1.317	Continuing	Continuing	
2.7) ILS - Reserve	- / 0.123	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.123	
2.8) Other Support	- / 18.883	- / -	- / 0.100	- / 0.200	- / -	- / 0.200	- / 1.530	- / 2.544	- / 3.231	- / 2.670	Continuing	Continuing	
2.9) Other Support - Reserve	- / 0.087	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.087	
2.10) Other Support-OCO	- / 5.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.400	
<i>Subtotal: Support</i>	<i>- / 32.347</i>	<i>- / -</i>	<i>- / 0.150</i>	<i>- / 0.550</i>	<i>- / -</i>	<i>- / 0.550</i>	<i>- / 3.400</i>	<i>- / 3.816</i>	<i>- / 4.738</i>	<i>- / 3.987</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	190.843	0.000	6.264	10.700	0.000	10.700	42.008	100.950	150.620	131.700	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series						Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	277.632	13.891	25.099	9.027	0.000	9.027	12.849	17.751	19.604	25.349	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	277.632	13.891	25.099	9.027	0.000	9.027	12.849	17.751	19.604	25.349	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	277.632	13.891	25.099	9.027	0.000	9.027	12.849	17.751	19.604	25.349	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: The H-53 aircraft is planned to be in service through Calendar Year 2029. The H-53 Aircraft Sustainment Strategy targets initiatives to remedy the top maintenance degraders, fatigue life limiters, and safety issues that impede the aircraft's ability to operate into the future. This program implements mitigations to H-53 component obsolescence structural limitations; landing gear, dynamic components, missions systems, life support, wiring improvements to aircrew safety and all other components required to fly the H-53E Fleet sustainment support in an affordable manner will continue until the H-53K becomes available. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The H-53 Sustainment Program Acquisition Strategy was approved by Program Executive Office (Aircraft) in December 2013 to be executed as one Abbreviated Acquisition Program (AAP) for Automatic Flight Control System (AFCS) and multiple independent projects related to safety, obsolescence, readiness and fatigue of all aircraft systems (e.g., fuel, rotor, drive, landing gear, electrical, hydraulic, lighting, tow, flight control, communication/navigation, pitot/static and cockpit instrumentation). Outside of the AFCS AAP, each year of the program involves non-recurring engineering (NRE) on some projects, leading to production and installation in out-years. Other projects require little or no NRE and can be acquired and installed quickly during routine maintenance. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP decreases \$16.072M from FY2019 to FY2020. FY2020 funding is required for the #2 Engine Fire Prevention Kits, Safety Readiness Improvement Kits, and modifications required to bring four reconstitutiionalized MH-53E aircraft inline with U.S. Fleet Standards. Future Modifications: Forward Hydraulic Access Panel Soundproofing Retention Kits												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 171 Total				Modification Type: MISSION/PERFORMANCE SUSTAINMENT				Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) CH-53Aircrew Cooling OCO - NonOrganic Installation 1 of 5	152 / 1.199	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	152 / 1.199
1.1.2) Engine Start Valve Kits - Organic(*)	- / -	534 / 0.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	534 / 0.801
1.1.3) #2 Engine Fire Prevention Kits - NonOrganic Installation 2 of 5	- / -	17 / 0.755	18 / 0.990	30 / 1.874	- / -	30 / 1.874	36 / 2.340	36 / 2.387	43 / 2.851	- / -	- / -	180 / 11.197
1.1.4) #2 Engine Fire Prevention Kits - Reserve - NonOrganic Installation 2 of 5	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.871	13 / 0.871
1.1.5) Kapton Wiring Kits (H-53) - NonOrganic Installation 3 of 5	170 / 20.740	- / -	4 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	174 / 24.740
1.1.6) Kapton Wiring Kits (H-53) - Reserve - NonOrganic Installation 3 of 5	1 / 0.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.143
1.1.7) Kapton Harness Replacement Parts - Organic(*)	230 / 4.452	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	230 / 4.452
1.1.8) Obsolescent Components (H-53) - Organic(*)	139 / 5.623	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	174 / 22.403	313 / 28.026
1.1.9) AYC 1406 Tail Rotor Drive Shaft A Kits - NonOrganic Installation 4 of 5	75 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	75 / 0.000
1.1.10) #2 Engine Compartment Modernization - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 7.924	59 / 17.662	6 / 1.831	92 / 27.417
1.1.11) ARCHIVED A KITS - Organic(*)	1,356 / 73.167	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,356 / 73.167
1.2.1) Installation Kits (including Automatic Flight Control System) - Organic(*) (3)	- / 40.251	- / 1.625	- / 1.324	- / 0.240	- / -	- / 0.240	- / 1.960	- / 8.682	- / 1.870	- / 1.423	- / 4.032	- / 61.407
1.2.2) Non-Recurring Engineering - Reserve (including AFCS) - Organic(*)	- / 0.744	- / 0.110	- / 0.110	- / 0.110	- / -	- / 0.110	- / 0.100	- / 0.102	- / 0.104	- / 0.106	- / -	- / 1.486
1.2.3) Installation Kits (OCO) - Organic(*)	- / 3.926	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.926
2.1.2) Safety/Readiness Improvement Kits - Organic(*)	190 / 2.284	235 / 1.410	24 / 4.548	1 / 0.189	- / -	1 / 0.189	24 / 4.445	24 / 4.534	24 / 4.625	24 / 4.717	158 / 6.004	704 / 32.756
2.1.3) Soundproofing Retention Kits - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	164 / 8.350	164 / 8.350
2.1.4) Soundproofing Retention Kits - Reserve - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.650	13 / 0.650
2.1.6) AMARG Modifications - NonOrganic (4) Installation 5 of 5	- / -	2 / 0.086	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.086
2.1.7) IR Fire Detector - Organic(*)	- / -	1,056 / 4.106	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,056 / 4.106
2.1.8) Retrofit Kits for Common Navy Configuration - Organic(*)	- / -	- / -	- / 11.178	- / 2.515	- / -	- / 2.515	- / 2.000	- / -	- / -	- / -	- / -	- / 15.693
2.1.9) Forward Hydraulic Access Panel - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000	- / 2.000

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 171 Total				Modification Type: MISSION/PERFORMANCE SUSTAINMENT				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.10) ARCHIVED B KITS - Organic ^(*)	4,175 / 18.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4,175 / 18.443	
2.2.1) Installation Cost - Prior Year - Organic ^(*)	- / 5.714	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.714	
2.2.2) Installation Equipment - Organic ^(*) ⁽⁵⁾	- / 1.632	- / 1.864	- / -	- / 0.150	- / -	- / 0.150	- / 0.357	- / 0.363	- / 0.370	- / 0.377	- / -	- / 5.113	
Subtotal: Procurement	- / 178.318	- / 10.757	- / 22.150	- / 5.078	- / -	- / 5.078	- / 11.202	- / 16.068	- / 17.744	- / 24.285	- / 46.141	- / 331.743	
Support													
3.1) Engineering Change Orders	- / 0.322	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.322	
3.2) Data - OCO	- / 0.512	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.512	
3.3) Data	- / 1.478	- / 0.050	- / 0.100	- / 0.237	- / -	- / 0.237	- / 0.100	- / 0.102	- / 0.102	- / 0.104	- / 4.729	- / 7.002	
3.4) Data - Reserve	- / 0.137	- / 0.050	- / 0.100	- / 0.100	- / -	- / 0.100	- / 0.020	- / 0.020	- / 0.020	- / 0.020	- / -	- / 0.467	
3.5) Training Equipment	6 / 0.030	- / -	- / 0.020	- / 0.020	- / -	- / 0.020	- / 0.020	- / 0.020	- / 0.020	- / 0.020	- / -	6 / 0.150	
3.6) Support Equipment	104 / 1.830	- / 0.017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.850	104 / 2.697	
3.7) ILS	- / 6.771	- / 0.517	- / 0.260	- / 0.360	- / -	- / 0.360	- / 0.150	- / 0.153	- / 0.153	- / 0.156	Continuing	Continuing	
3.8) ILS - Reserve	- / 1.113	- / 0.100	- / 0.050	- / 0.100	- / -	- / 0.100	- / 0.069	- / 0.070	- / 0.070	- / 0.071	Continuing	Continuing	
3.9) Other Support	- / 52.878	- / 1.900	- / 1.219	- / 1.271	- / -	- / 1.271	- / 0.563	- / 0.576	- / 0.576	- / 0.589	Continuing	Continuing	
3.10) Other Support - Reserve	- / 2.168	- / 0.150	- / 0.150	- / 0.150	- / -	- / 0.150	- / 0.100	- / 0.102	- / 0.102	- / 0.104	Continuing	Continuing	
3.11) Other Support - OCO	- / 1.702	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.702	
3.12) Interim Contractor support	- / 0.270	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.270	
Subtotal: Support	- / 69.211	- / 2.784	- / 1.899	- / 2.238	- / -	- / 2.238	- / 1.022	- / 1.043	- / 1.043	- / 1.064	- / 1.579	- / 9.122	
Installation													
Installation 1 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Aircrew Cooling	- / 0.886	- / 0.026	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.912	
Installation 2 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Engine Fire Prevention Kits	- / -	- / 0.284	- / 0.300	- / 0.511	- / 0.000	- / 0.511	- / 0.625	- / 0.640	- / 0.817	- / -	- / 0.230	- / 3.407	
Installation 3 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Kapton Wiring	- / 29.202	- / -	- / -	- / 1.200	- / 0.000	- / 1.200	- / -	- / -	- / -	- / -	- / 0.780	- / 31.182	
Installation 4 of 5: AYC 1406 Tail Rotor Drive Shaft A Kits	- / 0.015	- / 0.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.034	- / 0.089	
Installation 5 of 5: AMARG Modifications	- / -	- / -	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.750	
Subtotal: Installation	- / 30.103	- / 0.350	- / 1.050	- / 1.711	- / -	- / 1.711	- / 0.625	- / 0.640	- / 0.817	- / -	- / 1.044	- / 36.340	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 171 Total					Modification Type: MISSION/PERFORMANCE SUSTAINMENT					Related RDT&E PEs:			
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	277.632	13.891	25.099	9.027	0.000	9.027	12.849	17.751	19.604	25.349	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Aircrew Cooling																															
Manufacturer Information																															
Manufacturer Name: Carleton Tech, Inc															Manufacturer Location: Orchard Park, NY																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: H-53 A/C SUSTAINMENT (OSIP 08-06) Aircrew Cooling																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		149 / 0.886		3 / 0.026		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		152 / 0.912					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		149 / 0.886		3 / 0.026		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		152 / 0.912					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	149	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152
Out	149	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Engine Fire Prevention Kits																															
Manufacturer Information																															
Manufacturer Name: Sikorski Aircraft Corp															Manufacturer Location: Stratford, CT																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023									
Delivery Dates		Jun 2018				Jun 2019				Jun 2020				Jun 2021				Jun 2022				Jun 2023									
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: H-53 A/C SUSTAINMENT (OSIP 08-06) Engine Fire Prevent																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	17 / 0.284		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		17 / 0.284						
FY 2019		- / -	- / -		18 / 0.300		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.300						
FY 2020		- / -	- / -		- / -		30 / 0.511		0 / 0.000		30 / 0.511		- / -		- / -		- / -		- / -		- / -		0 / 0.000		30 / 0.511						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		36 / 0.625		- / -		- / -		- / -		- / -		0 / 0.000		36 / 0.625						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		36 / 0.640		- / -		- / -		- / -		0 / 0.000		36 / 0.640						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		43 / 0.817		- / -		- / -		0 / 0.000		43 / 0.817						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		13 / 0.230		13 / 0.230						
Total		- / -	17 / 0.284		18 / 0.300		30 / 0.511		0 / 0.000		30 / 0.511		36 / 0.625		36 / 0.640		43 / 0.817		- / -		- / -		13 / 0.230		193 / 3.407						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	8	-	-	9	9	-	-	15	15	-	-	18	18	-	-	18	18	-	-	21	22	-	-	-	-	13	193
Out	-	-	-	9	8	-	-	9	9	-	-	15	15	-	-	18	18	-	-	18	18	-	-	21	22	-	-	-	-	13	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 5: GRP: H-53 A/C SUSTAINMENT (OSIP 08-06) Kapton Wiring																															
Manufacturer Information																															
Manufacturer Name: SOFSA-Kapton ⁽⁶⁾															Manufacturer Location: Lexington, KY																
Administrative Leadtime <i>(in Months)</i> : 10															Production Leadtime <i>(in Months)</i> : 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jul 2019																									
Delivery Dates						Jun 2020																									
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: H-53 A/C SUSTAINMENT (OSIP 08-06) Kapton Wiring																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		171 / 29.202		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.780		171 / 29.982					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		4 / 1.200		0 / 0.000		4 / 1.200		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 1.200					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		171 / 29.202		- / -		- / -		4 / 1.200		0 / 0.000		4 / 1.200		- / -		- / -		- / -		- / -		- / -		0 / 0.780		175 / 31.182					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	171	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175
Out	171	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 5: AYC 1406 Tail Rotor Drive Shaft A Kits																															
Manufacturer Information																															
Manufacturer Name: Commanding Officer Cherry Point Naval Air Depot														Manufacturer Location: Cherry Point, NC																	
Administrative Leadtime (in Months): 6														Production Leadtime (in Months): 3																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: AYC 1406 Tail Rotor Drive Shaft A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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)																	
Prior Years		32 / 0.015		26 / 0.040		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		17 / 0.034		75 / 0.089							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		32 / 0.015		26 / 0.040		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		17 / 0.034		75 / 0.089							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	32	7	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	75
Out	32	7	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	75

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 5: AMARG Modifications																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Feb 2018																													
Delivery Dates		Feb 2019																													
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: AMARG Modifications																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		2 / 0.750		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.750						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		2 / 0.750		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.750						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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: ⁽³⁾ Cost Element 1.2.1 Installation Kits (including Automatic Flight Control System) increase in FY21 and FY22 due to required NRE for #2 Engine Compartment Modernization. ⁽⁴⁾ Cost Element 2.1.7 AMARG Modifications is to fund the reconstitution of 2 MH-53E war reserve aircraft to current H-53E configuration.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0528 / H-53 Series	Modification Number / Title: 4 / H-53 A/C SUSTAINMENT (OSIP 008-06)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(5) Cost Element 2.2.2 Installation Equipment NRE required for upcoming safety/readiness improvements. (6) Cost Element 1.1.8 Four additional kits are being installed in FY20 to support the four reconstitutionalized aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 5 / DIRCM (OSIP 010-08)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	208.512	0.872	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	209.436
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	208.512	0.872	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	209.436
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	208.512	0.872	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	209.436
<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:

Currently, the H-53 is only integrated with Infrared (IR) detection equipment and rudimentary countermeasure flares. This funding is for Engineering Change Proposal (ECP) development, A-kit procurement and installation of a Direct Infrared Counter Measure (DIRCM) system for H-53s. This system will help protect the H-53 which is highly susceptible to IR seeking Man-Portable Air Defense System (MANPADS), the weapon of choice in all current theaters. This system has been found effective against fourth generation IR MANPADS, and is extremely effective against earlier generation MANPADS.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Non-Recurring Engineering (NRE) for the CH-53E began in May 07 and concluded with a completed and verified Technical Directive in early FY09. Test and Evaluation for the CH-53E began with risk-reduction testing in April 08 and concluded with Initial Operational Test and Evaluation (IOT&E) in late FY09. Critical to early fielding was the Quick reaction assessment, completed in August 08 which led to an Early Operational Capability (EOC) decision in November 08. Validation and verification were conducted for the CH-53E between May - September 08. Non-Recurring engineering for the CH-53D began in May 08 and concluded with a completed and verified TD in early FY10. The FY11 United States Marine Corps Aviation Plan was released in October 2010 and called for the early retirement of the CH-53D. Development and deployment of the DIRCM system on the CH-53D system was subsequently suspended and the remaining funding was realigned to other priorities consistent with Headquarters Marine Corps direction. DIRCM is being procured as a mission kit by PMA-272. CH-53Es must be modified with an A-kit to accept the mission kit.

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: FY2019 completes installs.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 5 / DIRCM (OSIP 010-08)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: CH-53E (142), 142 Total					Modification Type: MISSION/PERFORMANCE SUSTAINMENT					Related RDT&E PEs:			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: DIRCM (OSIP 010-08)													
A Kits													
Recurring													
1.1.1) CH-53E Kits OCO - NonOrganic	54 / 5.483	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 5.483	
1.1.2) CH-53E (Rev-A) A-kits OCO - NonOrganic	147 / 2.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	147 / 2.771	
1.1.3) CH-53E (Rev-A) A Kits OCO - Reserve - NonOrganic	6 / 0.113	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.113	
1.1.4) Archived A Kits OSIP 10-08 - Organic	- / 44.881	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 44.881	
Subtotal: Recurring	- / 53.248	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 53.248	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	3 / 5.775	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 5.775	
Subtotal: Non-Recurring	- / 5.775	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.775	
B Kits													
Recurring													
2.1.1) Archived B Kits - Organic	223 / 108.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	223 / 108.990	
Subtotal: Recurring	- / 108.990	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 108.990	
Subtotal: DIRCM (OSIP 010-08)	433 / 168.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	433 / 168.013	
Subtotal: Procurement, All Modification Items	- / 168.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 168.013	
Support (All Modification Items)													
3.2) Data	- / 1.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.225	
3.3) Training Equipment	- / 0.335	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.335	
3.4) Training Equipment-OCO	- / 0.999	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.999	
3.6) ILS	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000	
3.7) ILS-OCO	- / 0.234	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.234	
3.8) Other Support	- / 14.112	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.112	
3.9) Other Support-OCO	- / 9.541	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.541	
3.10) Interim Contractor Support	- / 6.041	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.041	
Subtotal: Support	- / 34.487	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 34.487	
Installation													
Modification Item 1 of 1: DIRCM (OSIP 010-08)	- / 6.012	- / 0.872	- / 0.052	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 6.936	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 5 / DIRCM (OSIP 010-08)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), 142 Total				Modification Type: MISSION/PERFORMANCE SUSTAINMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
	Subtotal: Installation	- / 6.012	- / 0.872	- / 0.052	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 6.936
Total													
Total Cost (Procurement + Support + Installation)	208.512	0.872	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	209.436	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 5 / DIRCM (OSIP 010-08)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: DIRCM (OSIP 010-08)																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman-DIRCM															Manufacturer Location: Rolling Meadows, IL																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: DIRCM (OSIP 010-08)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		181 / 6.012		24 / 0.872		2 / 0.052		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		207 / 6.936					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		181 / 6.012		24 / 0.872		2 / 0.052		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		207 / 6.936					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	181	6	6	6	6	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207
Out	181	6	6	6	6	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207
Method of Implementation (Organic): Installation Kits N/R - Not Installed																															
																									Installation Quantity: 3						
Method of Implementation (Organic): Archived B Kits - Not Installed																															
																									Installation Quantity: 223						

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	66.044	18.304	7.521	7.996	0.000	7.996	11.246	11.900	14.455	12.787	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	66.044	18.304	7.521	7.996	0.000	7.996	11.246	11.900	14.455	12.787	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	66.044	18.304	7.521	7.996	0.000	7.996	11.246	11.900	14.455	12.787	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:

This Operational, Safety and Improvement Program (OSIP) will fund avionics systems for the H-53 helicopter. The H-53 strategy is to address safety, survivability, system obsolescence, and avionics deficiencies that require correction to maintain platform relevance on an increasingly networked battlefield. Specifically, this OSIP addresses Critical Survivability Upgrade (CSU), Satellite Communications (SATCOM), and Smart Multifunctional Color Display (SMFCD)for the CH-53E. Additionally CSU NRE for OFP software modification partially supports Identify Friend or Foe (IFF) Mode 5 and Mode S integration for the APX-123 Common Transponder integration.

CSU leverages the aircraft state, rate, and acceleration data available through integration of the H764G (Embedded Global Positioning System/Inertial Navigation System)(EGI) and development of improved hover symbology providing the Phase I Degraded Visual Environment (DVE) solution. The CSU program also provides the basis for the installation of the APX-123 Transponder to meet Mode 5 Initial Operational Capability (IOC) requirements. Non-recurring engineering efforts in FY17 are to upgrade the MH-53E antiquated cockpit with critical required safety and avionics upgrades, providing increased Situational Awareness and mission efficiency with minefield, Blue Force Tracker (BFT), Area Navigation (RNAV), map and hover displays. Commencing in FY16 is kit procurements for the MH EGI that will allow the MH-53E to utilize the full capability of the APX-23 transponder.

This funding provides for the integration of cockpit avionics with Aircraft Survival Equipment (ASE) to provide time critical data to other battlefield users in order to more rapidly prosecute threats. SMFCD, CSU, BFT, and SATCOM have transitioned from various OSIPs into Avionics. This funding effort seeks to meet requirements, and eliminate avionics and ASE related system level deficiencies and safety hazards with the above described improvements, as well as ensuring that all H-53 aircraft are equipped with a full complement of ASE required to operate on the modern networked battlefield. This budget funds installation of SSATCOM that meet over the horizon communication requirements. SMFCD improves aircrew safety by reducing pilot workload/associated fatigue and increases aircrew situational awareness. SMFCD provides an integrated avionics suite that will facilitate safe landings in a degraded visual environment, modernize navigational equipment and enhance situational awareness with a joint single integrated air ground picture. SMFCD provides Brown Out Symbology Set (BOSS) display capability on the instrument panel in the pilot’s primary field of view, allowing aircrews to land in dusty environments, and reducing the risk of Controlled Flight Into Terrain (CFIT) and resulting loss of life and aircraft. SMFCD provides a real time threat display for the Aircraft Survivability Equipment threat indications currently encountered, such as missiles, small arms, and lasers, overlaid on a real time moving map in the pilot’s normal field of view, vice several federated systems scattered around the cockpit. SMFCD further increases safety by eliminating the kneeboard Electronic Display Module (EDM) which currently tethers the pilot (head down) to the aircraft, creating an egress hazard during emergency situations.

Future targeted improvements include, but are not limited to ASE upgrades (including state of the art APR-39 and AAR-47), 8.33 kHz channel frequency separation, Required Navigation Performance (RNP) / Area Navigation (RNAV) (RNP/RNAV) certification, Variable Message Format Revision D change 1 compliance, embedded Terrain Avoidance and Warning System (eTAWs) integration, Collision Avoidance System integration, Over-the-Horizon communications and Crash Survivable Flight Data Recorder, Digital Battlefield Interoperability. Safety related improvements include a mitigating solution for Controlled Flight Into Terrain risk when operating in Degraded Visual Environment (DVE). Lastly, cockpit improvements are needed to provided better lighting, readability and reliability for visual warning systems.

Future Modifications: CH-53E APR-39D(V)2

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0528 / H-53 Series	Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Full EGI integration commenced in FY19.

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: FY20 increase of \$.475M funds the procurement of DVE/Low Speed Precision Controls (LSPC) kits.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 171 Total				Modification Type: MISSION/PERFORMANCE SUSTAINMENT				Related RDT&E PEs:					
Financial Plan		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
(*) Indicates the modification is being installed organically and no installation funds are required.		Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (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													
1.1.1) SMFCD - NonOrganic ⁽⁷⁾ Installation 1 of 6		150 / 2.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	150 / 2.250
1.1.2) SMFCD - Reserve - NonOrganic Installation 1 of 6		6 / 0.156	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.156
1.1.3) SATCOM - NonOrganic ⁽⁸⁾ Installation 2 of 6		151 / 0.018	1 / 0.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	152 / 0.442
1.1.4) Critical Systems upgrade (CSU) - NonOrganic ⁽⁹⁾ Installation 3 of 6		95 / 0.000	6 / 4.861	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	101 / 4.861
1.1.5) Critical Systems Upgrade (CSU) - Reserve - NonOrganic Installation 3 of 6		6 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.000
1.1.6) MH EGI A Kits - NonOrganic ⁽¹⁰⁾ Installation 4 of 6		14 / 1.229	13 / 1.660	4 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 3.189
1.1.7) CH-53E APR-39D(V)2 - NonOrganic Installation 5 of 6		- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.040	12 / 0.490	39 / 1.622	38 / 1.611	- / -	90 / 3.763
1.1.8) CH-53E DVE/LSPC A kits - NonOrganic Installation 6 of 6		- / -	- / -	- / -	11 / 0.275	- / -	11 / 0.275	23 / 0.575	23 / 0.587	23 / 0.598	5 / 0.133	- / -	85 / 2.168
1.2.1) Installation Kit NRE - Organic ^(*) (11)		- / 4.902	- / 0.467	- / 2.871	- / 0.462	- / -	- / 0.462	- / 1.890	- / 1.645	- / 1.106	- / -	- / -	- / 13.343
2.1.1) SMFCD B Kits - Organic ^(*)		146 / 22.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	146 / 22.575
2.1.2) SMFCD B Kits - Reserve - Organic ^(*)		6 / 1.557	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.557
2.1.3) SMFCD B-kit Modem - Organic ^(*)		98 / 1.568	57 / 2.474	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	155 / 4.042
2.1.4) CH-53 ARC-210 SATCOM Kit-OCO - Organic ^(*)		40 / 1.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 1.600
2.1.5) MH EGI B Kits - Organic ^(*)		30 / 1.359	- / -	4 / 0.348	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 1.707
2.1.6) CH-53E DVE/LSPC B kit - Organic ^(*)		- / -	- / -	- / -	11 / 2.475	- / -	11 / 2.475	23 / 5.175	23 / 5.279	23 / 5.382	5 / 1.193	- / -	85 / 19.504
2.1.7) Avionics B Kits - Organic ^(*)		45 / 0.216	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 0.216
2.1.8) Avioncs B Kit NRE - Organic ^(*)		- / 0.050	- / 0.414	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.464
Subtotal: Procurement		- / 37.480	- / 10.300	- / 3.519	- / 3.212	- / -	- / 3.212	- / 7.680	- / 8.001	- / 8.708	- / 2.937	- / 0.000	- / 81.837
Support													
3.2) Data		- / 1.465	- / 0.041	- / 0.095	- / 0.250	- / -	- / 0.250	- / 0.100	- / 0.102	- / 0.104	- / 0.106	- / 0.060	- / 2.323
3.3) Software		- / 4.064	- / 0.085	- / 0.052	- / 0.090	- / -	- / 0.090	- / 0.058	- / 0.021	- / 0.153	- / 0.156	- / 0.562	- / 5.241
3.4) Training Equipment		- / -	- / -	- / 0.126	- / 0.822	- / -	- / 0.822	- / 0.465	- / 0.474	- / 0.483	- / 0.383	- / 0.100	- / 2.853
3.5) Support Equipment		- / 0.206	- / -	- / 0.020	- / 0.020	- / -	- / 0.020	- / 0.020	- / 0.020	- / 0.020	- / 0.020	- / 0.015	- / 0.341

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E (142), MH-53E (29), 171 Total				Modification Type: MISSION/PERFORMANCE SUSTAINMENT				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.6) ILS	- / 2.754	- / 0.470	- / 0.458	- / 0.520	- / -	- / 0.520	- / 0.497	- / 0.507	- / 0.517	- / 0.527	Continuing	Continuing	
3.7) ILS - Reserve	- / 0.052	- / 0.017	- / 0.018	- / 0.015	- / -	- / 0.015	- / 0.015	- / 0.015	- / 0.015	- / 0.015	Continuing	Continuing	
3.8) Other Support	- / 10.089	- / 1.500	- / 1.424	- / 1.739	- / -	- / 1.739	- / 1.696	- / 1.732	- / 1.769	- / 1.805	Continuing	Continuing	
3.9) Other Support - Reserve	- / 0.224	- / 0.063	- / 0.061	- / 0.060	- / -	- / 0.060	- / 0.060	- / 0.061	- / 0.062	- / 0.063	Continuing	Continuing	
3.10) Aircraft 539 Reconfigure Other Support - OCO	- / 0.609	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.609	
Subtotal: Support	- / 19.463	- / 2.176	- / 2.254	- / 3.516	- / -	- / 3.516	- / 2.911	- / 2.932	- / 3.123	- / 3.075	Continuing	Continuing	
Installation													
Installation 1 of 6: GRP: H-53 AVIONICS (OSIP 031-12) - SMFCD	- / 0.885	- / 1.716	- / 1.080	- / 1.080	- / 0.000	- / 1.080	- / 0.270	- / -	- / -	- / -	- / 0.000	- / 5.031	
Installation 2 of 6: SATCOM	- / 2.152	- / 0.126	- / 0.210	- / 0.140	- / 0.000	- / 0.140	- / -	- / -	- / -	- / -	- / 0.000	- / 2.628	
Installation 3 of 6: GRP: H-53 AVIONICS (OSIP 031-12) - CSU	- / 6.064	- / 3.859	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 9.923	
Installation 4 of 6: MH EGI A Kits	- / -	- / 0.127	- / 0.458	- / 0.048	- / 0.000	- / 0.048	- / -	- / -	- / -	- / -	- / 0.000	- / 0.633	
Installation 5 of 6: CH-53E APR-39D(V)2	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.146	- / 1.787	- / 5.922	- / 5.881	- / 13.736	
Installation 6 of 6: CH-53E DVE/LSPC A kits	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.385	- / 0.821	- / 0.837	- / 0.853	- / 0.189	- / 3.085	
Subtotal: Installation	- / 9.101	- / 5.828	- / 1.748	- / 1.268	- / -	- / 1.268	- / 0.655	- / 0.967	- / 2.624	- / 6.775	- / 6.070	- / 35.036	
Total													
Total Cost (Procurement + Support + Installation)	66.044	18.304	7.521	7.996	0.000	7.996	11.246	11.900	14.455	12.787	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 6: GRP: H-53 AVIONICS (OSIP 031-12) - SMFCD																															
Manufacturer Information																															
Manufacturer Name: Raytheon															Manufacturer Location: Indianapolis, IN																
Administrative Leadtime (in Months): 9															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: H-53 AVIONICS (OSIP 031-12) - SMFCD																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		32 / 0.885		43 / 1.716		36 / 1.080		36 / 1.080		0 / 0.000		36 / 1.080		9 / 0.270		- / -		- / -		- / -		- / -		0 / 0.000		156 / 5.031					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		32 / 0.885		43 / 1.716		36 / 1.080		36 / 1.080		0 / 0.000		36 / 1.080		9 / 0.270		- / -		- / -		- / -		- / -		0 / 0.000		156 / 5.031					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	32	10	13	10	10	9	9	9	9	9	9	9	9	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	32	10	13	10	10	9	9	9	9	9	9	9	9	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 6: SATCOM																															
Manufacturer Information																															
Manufacturer Name: Rockwell Collins-SATCOM															Manufacturer Location: CEDAR RAPIDS, IA																
Administrative Leadtime (<i>in Months</i>): 9															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jul 2018																													
Delivery Dates		Oct 2019																													
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: SATCOM																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		132 / 2.152		4 / 0.126		15 / 0.210		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		151 / 2.488					
FY 2018		- / -		- / -		- / -		1 / 0.140		0 / 0.000		1 / 0.140		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.140					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		132 / 2.152		4 / 0.126		15 / 0.210		1 / 0.140		0 / 0.000		1 / 0.140		- / -		- / -		- / -		- / -		- / -		0 / 0.000		152 / 2.628					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	132	2	2	-	-	4	4	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152
Out	132	2	2	-	-	4	4	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	152

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: GRP: H-53 AVIONICS (OSIP 031-12) - CSU																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin															Manufacturer Location: Lexington, KY																
Administrative Leadtime (<i>in Months</i>): 9															Production Leadtime (<i>in Months</i>): 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jul 2018																													
Delivery Dates		Aug 2018																													
Installation Information																															
Method of Implementation: CONTRACTOR FIELD MOD TEAM:: Installation Name: H-53 AVIONICS (OSIP 031-12) - CSU																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		79 / 6.064		22 / 3.032		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		101 / 9.096					
FY 2018		- / -		6 / 0.827		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.827					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		79 / 6.064		28 / 3.859		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		107 / 9.923					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	79	9	9	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107
Out	79	9	9	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 4 of 6: MH EGI A Kits																															
Manufacturer Information																															
Manufacturer Name: MH EGI - Honeywell										Manufacturer Location: Clearwater, FL																					
Administrative Leadtime (in Months): 4										Production Leadtime (in Months): 12																					
Dates	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates	Jan 2018				Jan 2019																										
Delivery Dates	Jan 2019				Jan 2020																										
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: MH EGI A Kits																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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		- / -	14 / 0.127	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	14 / 0.127																		
FY 2018		- / -	- / -	13 / 0.458	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	13 / 0.458																		
FY 2019		- / -	- / -	- / -	4 / 0.048	0 / 0.000	4 / 0.048	- / -	- / -	- / -	- / -	0 / 0.000	4 / 0.048																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	14 / 0.127	13 / 0.458	4 / 0.048	0 / 0.000	4 / 0.048	- / -	- / -	- / -	- / -	0 / 0.000	31 / 0.633																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	7	7	-	5	5	3	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
Out	-	-	-	7	7	-	5	5	3	-	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 6: CH-53E APR-39D(V)2																															
Manufacturer Information																															
Manufacturer Name: TBD - APR-39D															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jan 2021				Jan 2022				Jan 2023									
Delivery Dates														Jan 2022				Jan 2023				Jan 2024									
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: CH-53E APR-39D(V)2																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.146		- / -		- / -		0 / 0.000		1 / 0.146					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 1.787		- / -		0 / 0.000		12 / 1.787					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		39 / 5.922		0 / 0.000		39 / 5.922					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		38 / 5.881		38 / 5.881					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.146		12 / 1.787		39 / 5.922		38 / 5.881		90 / 13.736					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	-	13	13	13	38	90
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	4	4	4	-	13	13	13	38	90

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 6: CH-53E DVE/LSPC A kits																															
Manufacturer Information																															
Manufacturer Name: TBD - DVE															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023									
Delivery Dates										Jan 2021				Jan 2022				Jan 2023				Jan 2024									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: CH-53E DVE/LSPC A kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		11 / 0.385		- / -		- / -		- / -		0 / 0.000		11 / 0.385					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		23 / 0.821		- / -		- / -		0 / 0.000		23 / 0.821					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		23 / 0.837		- / -		0 / 0.000		23 / 0.837					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		23 / 0.853		0 / 0.000		23 / 0.853					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.189		5 / 0.189					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		11 / 0.385		23 / 0.821		23 / 0.837		23 / 0.853		5 / 0.189		85 / 3.085					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	3	-	8	8	7	-	8	8	7	-	8	8	7	5	85
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	3	-	8	8	7	-	8	8	7	-	8	8	7	5	85
Footnotes: ⁽⁷⁾ Cost Element 1.1.1 Prior Year Kits procured under OSIP 15-05, 10 Trainer kits installed at the "O" Level. ⁽⁸⁾ Cost Element 1.1.3 SATCOM Kits procured under OSIP 20-07. Install is performed via Contractor Field Mod Team which can vary the costs depending on the location of the installation. ⁽⁹⁾ Cost Element 1.1.4 40 Visually Degraded Environment (VDE) kits are being installed simultaneously with BFT Kits. Prior year kits procured under OSIP 15-05																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0528 / H-53 Series	Modification Number / Title: 6 / H-53 AVIONICS (OSIP 031-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽¹⁰⁾ Cost Element 1.1.6 MH EGI A Kits Install is performed via Contractor Field Mod Team which can vary the costs depending on the location of the installation. ⁽¹¹⁾ Cost Element 1.2.1 Installation Kit NRE - Increase in FY19 is to support the full integration of EGI, and non-recurring engineering required for mission essential navigation for DVE and APR-39D(V)2.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code: 390					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	11.010	17.703	0.000	17.703	17.876	25.469	31.187	24.877	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	11.010	17.703	0.000	17.703	17.876	25.469	31.187	24.877	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	11.010	17.703	0.000	17.703	17.876	25.469	31.187	24.877	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: This Operational and Safety Improvement Program incorporates Corrections of Deficiencies on CH-53K aircraft related to safety, survivability, maintainability, reliability, interoperability and obsolescence of aircraft systems. These modifications and selected component changes will be accomplished by field retrofit performed by FRC, organic contractor artisans and contractor field mod teams. In order to resolve emerging deficiencies in a timeline that supports fleet requirements, the airframe, avionics, and propulsion and power systems which must be modified and installed as critical corrections/changes are identified. Funds will be used to manage, prepare, process, develop for retrofit, validate/verify, and incorporate Engineering Change Proposals (ECP) and implement those corrections to improve and sustain the CH-53K operations. Corrections/modifications will be integrated for Reliability improvements. Avionics systems corrections include aircrew avionics, data, displays, controls, Operational Flight Program (OFF) aircraft software, Navigation and Safety systems, Air Data Pitot Static System, Communications / Identification / Intercommunication and Interoperability systems for CNS/ATM, Data Link, Counter Measures, Degraded Visual Environment (DVE), System Integration Laboratory, and Mission Planning. Airframe corrections include all structural components, mounts, cowlings, landing gear, fuselage and various dynamic components and internal/external cargo load, Propulsion and Power upgrades include main/tail rotors, engines, fuel system, hydraulic power system, auxiliary power, ECS/Icing, rotors assembly, transmission, drive train, Integrated Mobile Aircrew Restraint System (IMARS), windscreens and mission system equipment. Propulsion and Power corrections are planned for chip detectors, main rotor blades (MRB), wheels and brakes and fire suppression system. Corrections and modifications include retrofit activities for SDTA aircraft to maintain production configuration. Corrections and modifications include aircraft and mission software, communication systems, air data systems, fire suppression, airframe and engine structural components, windshield components, restraint devices, and the engine and fuel system components. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: CH-53K ADM signed for MS-C on 4 April 2017. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP increases \$6.693 from FY2019 to FY2020 for retrofits to upgrade the SDTA's to production configuration for delivery to the fleet. NOTE: Specific ECPs performed each year will vary based on identified deficiencies.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code: 390					
Models of Systems Affected: CH-53K				Modification Type: Safety, Reliability, Improved Mission Capability				Related RDT&E PEs: 0605212N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Avionics - NonOrganic ⁽¹²⁾ <i>Installation 1 of 3</i>	- / -	- / -	6 / 1.440	6 / 2.050	- / -	6 / 2.050	10 / 0.686	14 / 4.420	26 / 7.800	- / -	- / -	62 / 16.396	
1.1.2) Airframe - NonOrganic ⁽¹³⁾ <i>Installation 2 of 3</i>	- / -	- / -	6 / 3.850	6 / 7.600	- / -	6 / 7.600	10 / 5.700	14 / 5.800	26 / 10.400	- / -	- / -	62 / 33.350	
1.1.3) Propulsion and Power - NonOrganic ⁽¹⁴⁾ <i>Installation 3 of 3</i>	- / -	- / -	6 / 1.025	6 / 0.805	- / -	6 / 0.805	10 / 0.445	14 / 2.858	26 / 5.200	- / -	- / -	62 / 10.333	
1.1.4) Reliability Improvements - Organic ^(*)	- / -	- / -	- / -	8 / 2.150	- / -	8 / 2.150	- / -	- / -	- / -	- / -	- / -	8 / 2.150	
1.1.5) MRB Tip Core Deficiency - Organic ^{(*) (15)}	- / -	- / -	- / -	- / -	- / -	- / -	10 / 6.370	12 / 9.555	4 / 3.348	22 / 18.435	- / -	48 / 37.708	
1.1.6) Wheel & Brakes Deficiency - Organic ^{(*) (16)}	- / -	- / -	- / -	6 / 0.305	- / -	6 / 0.305	10 / 0.875	- / -	- / -	- / -	- / -	16 / 1.180	
1.2.1) A kit Non-recurring - Organic ^(*)	- / -	- / -	- / 4.050	- / 1.463	- / -	- / 1.463	- / 1.995	- / 1.402	- / 0.659	- / -	- / -	- / 9.569	
<i>Subtotal: Procurement</i>	- / 0.000	- / -	- / 10.365	- / 14.373	- / -	- / 14.373	- / 16.071	- / 24.035	- / 27.407	- / 18.435	- / 0.000	- / 110.686	
Support													
3.1) Data	- / -	- / -	- / 0.110	- / 0.205	- / -	- / 0.205	- / 0.084	- / 0.118	- / 0.120	- / 0.122	- / -	- / 0.759	
3.2) ILS	- / -	- / -	- / 0.105	- / 0.105	- / -	- / 0.105	- / 0.075	- / 0.088	- / 0.090	- / 0.092	Continuing	Continuing	
3.3) Other Support	- / -	- / -	- / 0.430	- / 0.455	- / -	- / 0.455	- / 0.417	- / 0.488	- / 0.498	- / 0.508	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 0.645	- / 0.765	- / -	- / 0.765	- / 0.576	- / 0.694	- / 0.708	- / 0.722	Continuing	Continuing	
Installation													
<i>Installation 1 of 3:</i> Avionics	- / -	- / -	- / -	- / 0.925	- / 0.000	- / 0.925	- / 0.395	- / 0.195	- / 0.748	- / 1.404	- / 0.000	- / 3.667	
<i>Installation 2 of 3:</i> Airframe	- / -	- / -	- / -	- / 1.355	- / 0.000	- / 1.355	- / 0.648	- / 0.225	- / 1.862	- / 3.458	- / 0.000	- / 7.548	
<i>Installation 3 of 3:</i> Propulsion and Power	- / -	- / -	- / -	- / 0.285	- / 0.000	- / 0.285	- / 0.186	- / 0.320	- / 0.462	- / 0.858	- / 0.000	- / 2.111	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 2.565	- / -	- / 2.565	- / 1.229	- / 0.740	- / 3.072	- / 5.720	- / 0.000	- / 13.326	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	11.010	17.703	0.000	17.703	17.876	25.469	31.187	24.877	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019																								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)																							
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code: 390																				
Installation 1 of 3: Avionics																															
Manufacturer Information																															
Manufacturer Name: TBD ⁽¹⁷⁾														Manufacturer Location: TBD																	
Administrative Leadtime <i>(in Months)</i> : 3														Production Leadtime <i>(in Months)</i> : 12																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Dec 2020				Dec 2021				Dec 2022									
Delivery Dates						Jan 2020				Jan 2021				Dec 2021				Dec 2022				Dec 2023									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Avionics																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		6 / 0.925		0 / 0.000		6 / 0.925		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.925					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.395		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.395					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.195		- / -		- / -		- / -		0 / 0.000		10 / 0.195					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.748		- / -		- / -		0 / 0.000		14 / 0.748					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		26 / 1.404		0 / 0.000		26 / 1.404					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		6 / 0.925		0 / 0.000		6 / 0.925		6 / 0.395		10 / 0.195		14 / 0.748		26 / 1.404		0 / 0.000		62 / 3.667							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	3	2	3	3	3	3	5	7	7	6	6	-	62
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	2	3	2	3	3	3	3	5	7	7	6	6	-	62

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 390																
Installation 2 of 3: Airframe																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Dec 2020				Dec 2021				Dec 2022									
Delivery Dates						Jan 2020				Jan 2021				Dec 2021				Dec 2022				Dec 2023									
Installation Information																															
Method of Implementation: Contractor Mod Team:: Installation Name: Airframe																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		6 / 1.355		0 / 0.000		6 / 1.355		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 1.355						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		6 / 0.648		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.648						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.225		- / -		- / -		- / -		0 / 0.000		10 / 0.225						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 1.862		- / -		- / -		0 / 0.000		14 / 1.862						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		26 / 3.458		0 / 0.000		26 / 3.458						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		6 / 1.355		0 / 0.000		6 / 1.355		6 / 0.648		10 / 0.225		14 / 1.862		26 / 3.458		0 / 0.000		62 / 7.548								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	3	3	2	3	3	3	5	7	7	6	6	-	62
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	2	3	3	2	3	3	3	5	7	7	6	6	-	62

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 390																
Installation 3 of 3: Propusion and Power																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Dec 2020				Dec 2021				Dec 2022									
Delivery Dates						Jan 2020				Jan 2021				Dec 2021				Dec 2022				Dec 2023									
Installation Information																															
Method of Implementation: Contractor Mod Team:: Installation Name: Propusion and Power																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		6 / 0.285		0 / 0.000		6 / 0.285		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.285						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		6 / 0.186		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.186						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.320		- / -		- / -		- / -		0 / 0.000		10 / 0.320						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.462		- / -		- / -		0 / 0.000		14 / 0.462						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		26 / 0.858		0 / 0.000		26 / 0.858						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		6 / 0.285		0 / 0.000		6 / 0.285		6 / 0.186		10 / 0.320		14 / 0.462		26 / 0.858		0 / 0.000		62 / 2.111								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	3	3	2	3	3	3	5	7	7	6	6	-	62
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	2	3	3	2	3	3	3	5	7	7	6	6	-	62
Footnotes:																															
⁽¹²⁾ Cost Element 1.1.1 Avionics Specific ECPs performed each year will vary based on identified deficiencies.																															
⁽¹³⁾ Cost Element 1.1.2 Airframe Specific ECPs performed each year will vary based on identified deficiencies.																															

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0528 / H-53 Series	Modification Number / Title: 7 / Correction of Deficiencies (OSIP 007-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code: 390
(14) Cost Element 1.1.3 Propulsion and Power Specific ECPs performed each year will vary based on identified deficiencies. (15) Cost Element 1.1.5 MRB Tip Core Deficiency Budget increases from FY21 to FY22 are expected for additional planned corrections to the main rotor blade. (16) Cost Element 1.1.6 Wheel & Brakes Deficiency unit cost increase from FY20 to FY21 due FY21 including a a component redesign that will be incorporated into the retrofit. (17) Specific ECPs performed each year will vary based on identified deficiencies.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series				Modification Number / Title: 8 / CH-53K Production Upgrades (OSIP 008-19)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	8.022	10.169	0.000	10.169	5.791	3.842	5.139	0.815	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	8.022	10.169	0.000	10.169	5.791	3.842	5.139	0.815	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	8.022	10.169	0.000	10.169	5.791	3.842	5.139	0.815	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: This Operational Safety and Improvement Program (OSIP) incorporates a number of retrofits into CH-53K Aircraft to common fleet configuration to address obsolescence issues and improve mission performance, reliability, maintainability and supportability. This OSIP incorporates cost effective changes to CH-53K systems to improve ready-based aircraft and ready-for-tasking rates. Improvements to maintenance and readiness degrader items will yield a more capable and survivable CH-53K to sustain warfighter capability in support of worldwide operations. Systems modified and improved on CH-53K aircraft will leverage common architectures and utilize existing technology to the maximum extent practicable to minimize development and procurement costs and to reduce the time to field the improved systems. Retrofit will be integrated for Reliability improvements. Avionics systems corrections include aircrew avionics, data, displays, controls, Operational Flight Program (OFP) aircraft software, Navigation and Safety systems, Air Data Pitot Static System, Communications / Identification / Intercommunication and Interoperability systems for CNS/ATM, Data Link, Counter Measures, Degraded Visual Environment (DVE), System Integration Laboratory, and Mission Planning. Airframe corrections include all structural components, mounts, cowlings, landing gear, fuselage and various dynamic components and internal/external cargo load, Propulsion and Power upgrades include main/tail rotors, engines, fuel system, hydraulic power system, auxiliary power, ECS/Icing, rotors assembly, transmission, drive train, Integrated Mobile Aircrew Restraint System (IMARS), windscreens and mission system equipment. Propulsion and Power corrections are planned for chip detectors, main rotor blades (MRB), wheels and brakes and fire suppression system. Retrofit and modifications include activities for aircraft to be maintained in production configuration. Retrofit and modification activities include Heads-Up Display (HUD) to improve safety and mission effectiveness, ARC-210 Airborne Radio for hardware obsolescence and to meet crypto modernization requirements, Digital Interoperability (DI) capabilities, Health Monitoring Systems, GAU-21system components, and Flight Control Computer (FCC) and aircraft systems obsolescence, and fire protection system. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ADM signed for MS-C on 4 April 2017. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: This OSIP increases \$2.147M from FY2019 to FY2020 for retrofits to upgrade the SDTA's to production configuration for delivery to the fleet. NOTE: Specific ECPs performed each year will vary based on identified deficiencies.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series						Modification Number / Title: 8 / CH-53K Production Upgrades (OSIP 008-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: CH-53K				Modification Type: Mission Capability, Reliability, Safety				Related RDT&E PEs: 0604215N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Heads Up Display (HUD) - NonOrganic ⁽¹⁸⁾ <i>Installation 1 of 2</i>	- / -	- / -	6 / 0.153	6 / 0.153	- / -	6 / 0.153	- / -	- / -	- / -	- / -	- / -	12 / 0.306	
1.1.2) ARC-210 Airborne Radio - NonOrganic ⁽¹⁹⁾ <i>Installation 2 of 2</i>	- / -	- / -	6 / 0.666	6 / 0.666	- / -	6 / 0.666	- / -	- / -	- / -	- / -	- / -	12 / 1.332	
1.1.3) GAU-21 - Organic ^(*)	- / -	- / -	- / -	6 / 0.060	- / -	6 / 0.060	10 / 0.062	12 / 0.125	28 / 0.280	- / -	- / -	56 / 0.527	
1.1.4) Flight Control Computer - Organic ^(*)	- / -	- / -	- / -	6 / 0.385	- / -	6 / 0.385	10 / 1.155	12 / 1.550	28 / 3.360	- / -	- / -	56 / 6.450	
1.1.5) Fuel Shut-Off Valve - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.100	28 / 0.224	28 / 0.228	- / 0.538	68 / 1.090	
1.2.1) A KIT NRE - Organic ^(*)	- / -	- / -	- / 3.957	- / 3.360	- / -	- / 3.360	- / 1.930	- / 1.504	- / 0.700	- / -	- / -	- / 11.451	
2.1.1) Heads Up Display (HUD) - Organic ^(*)	- / -	- / -	6 / 0.561	6 / 0.561	- / -	6 / 0.561	- / -	- / -	- / -	- / -	- / -	12 / 1.122	
2.1.2) ARC-210 Airborne Radio - Organic ^(*)	- / -	- / -	6 / 2.220	6 / 2.220	- / -	6 / 2.220	- / -	- / -	- / -	- / -	- / -	12 / 4.440	
Subtotal: Procurement	- / 0.000	- / -	- / 7.557	- / 7.405	- / -	- / 7.405	- / 3.147	- / 3.279	- / 4.564	- / 0.228	- / 0.538	- / 26.718	
Support													
3.2) Data	- / -	- / -	- / 0.100	- / 0.150	- / -	- / 0.150	- / 0.130	- / 0.125	- / 0.128	- / 0.131	- / 0.122	- / 0.886	
3.3) ILS	- / -	- / -	- / 0.140	- / 0.142	- / -	- / 0.142	- / 0.115	- / 0.150	- / 0.153	- / 0.156	Continuing	Continuing	
3.4) Other Support	- / -	- / -	- / 0.225	- / 0.240	- / -	- / 0.240	- / 0.167	- / 0.288	- / 0.294	- / 0.300	Continuing	Continuing	
Subtotal: Support	- / 0.000	- / -	- / 0.465	- / 0.532	- / -	- / 0.532	- / 0.412	- / 0.563	- / 0.575	- / 0.587	Continuing	Continuing	
Installation													
Installation 1 of 2: Heads Up Display (HUD)	- / -	- / -	- / -	- / 0.792	- / 0.000	- / 0.792	- / 0.792	- / -	- / -	- / -	- / 0.000	- / 1.584	
Installation 2 of 2: ARC-210 Airborne Radio	- / -	- / -	- / -	- / 1.440	- / 0.000	- / 1.440	- / 1.440	- / -	- / -	- / -	- / 0.000	- / 2.880	
Subtotal: Installation	- / 0.000	- / -	- / -	- / 2.232	- / -	- / 2.232	- / 2.232	- / -	- / -	- / -	- / 0.000	- / 4.464	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	8.022	10.169	0.000	10.169	5.791	3.842	5.139	0.815	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 8 / CH-53K Production Upgrades (OSIP 008-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: Heads Up Display (HUD)																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020																					
Delivery Dates						Jan 2020				Jan 2021																					
Installation Information																															
Method of Implementation: Contractor Mod Team:: Installation Name: Heads Up Display (HUD)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		6 / 0.792		0 / 0.000		6 / 0.792		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.792					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.792		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.792					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		6 / 0.792		0 / 0.000		6 / 0.792		6 / 0.792		- / -		- / -		- / -		- / -		0 / 0.000		12 / 1.584					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	12

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0528 / H-53 Series										Modification Number / Title: 8 / CH-53K Production Upgrades (OSIP 008-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: ARC-210 Airborne Radio																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020																					
Delivery Dates						Jan 2020				Jan 2021																					
Installation Information																															
Method of Implementation: Contracator Mod Team:: Installation Name: ARC-210 Airborne Radio																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		6 / 1.440		0 / 0.000		6 / 1.440		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 1.440					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		6 / 1.440		- / -		- / -		- / -		- / -		0 / 0.000		6 / 1.440					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		6 / 1.440		0 / 0.000		6 / 1.440		6 / 1.440		- / -		- / -		- / -		- / -		0 / 0.000		12 / 2.880					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Footnotes: ⁽¹⁸⁾ Specific ECPs performed each year will vary based on identified production upgrades. ⁽¹⁹⁾ Specific ECPs performed each year will vary based on identified production upgrades.																															

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[illegible]**Description:**

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0528 / H-53 Series					Modification Number / Title: 9 / Archived OSIPS				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: H-53 Series				Modification Type: Various					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPS - Organic ^(*)	- / 634.306	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 634.306	
Subtotal: Procurement	- / 634.306	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 634.306	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	634.306	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	634.306	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0530 / MH-60 Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,218.333	99.111	130.720	149.797	0.000	149.797	135.261	112.546	103.493	104.098	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,218.333	99.111	130.720	149.797	0.000	149.797	135.261	112.546	103.493	104.098	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,218.333	99.111	130.720	149.797	0.000	149.797	135.261	112.546	103.493	104.098	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:

This line item funds modifications to MH-60 Series aircraft. The MH-60 Series FY 2019 Inventory is comprised of: 8 HH-60H, 261 MH-60S, 269 MH-60R. The HH-60H is used for dedicated Special Operations Forces (SOF) support and will be replaced by MH-60S in FY 2019. Primary missions of the MH-60S include Surface Warfare, SOF Support, Personnel Recovery and Airborne Mine Countermeasures (AMCM). Additional missions include Combat Logistics, Vertical Replenishment, Search and Rescue, Humanitarian Assistance/Disaster Response, and Airhead Operations. The primary missions of the MH-60R are Anti-Submarine Warfare, Electronic Warfare, and Surface Warfare. Secondary missions include Vertical Replenishment and Search and Rescue. The overall goal of the modifications budget is for Safety Related Systems Upgrades, AMCM/Armed Helo (Correction of Deficiencies) for the MH-60S, Warfighter upgrades for the MH-60R, Warfighter upgrades for the MH-60S and, MH-60 Aircraft obsolescence.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy			Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft			P-1 Line Item Number / Title: 0530 / MH-60 Series		
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / 009-03 SAFETY RELATED SYSTEM UPGRADE (SAFETY)				- / 72.875	- / 0.445	- / 9.200	- / 2.835	- / 0.000	- / 2.835
P-3a	2 / 016-04 ARMED HELO/AMCM (OPERATIONAL ENHANCEMENT)				- / 49.426	- / 0.196	- / 0.176	- / 0.000	- / 0.000	- / 0.000
P-3a	3 / 001-06 MH-60R WARFIGHTER (OPERATIONAL ENHANCEMENT, RELIABILITY)				- / 376.789	- / 35.918	- / 26.347	- / 43.021	- / 0.000	- / 43.021
P-3a	4 / 009-07 MH-60S WARFIGHTER (OPERATIONAL ENHANCEMENT)				- / 266.753	- / 27.672	- / 60.594	- / 40.771	- / 0.000	- / 40.771
P-3a	5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT (SUSTAINMENT)				- / 88.461	- / 34.880	- / 34.403	- / 63.170	- / 0.000	- / 63.170
P-3a	6 / Inactive OSIPs (TBD)				- / 364.029	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,218.333	- / 99.111	- / 130.720	- / 149.797	- / 0.000	- / 149.797

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / 009-03 SAFETY RELATED SYSTEM UPGRADE (SAFETY)				- / 3.284	- / 3.344	- / 3.464	- / 3.527	Continuing	Continuing
P-3a	2 / 016-04 ARMED HELO/AMCM (OPERATIONAL ENHANCEMENT)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 49.798
P-3a	3 / 001-06 MH-60R WARFIGHTER (OPERATIONAL ENHANCEMENT, RELIABILITY)				- / 35.694	- / 22.166	- / 19.644	- / 19.214	Continuing	Continuing
P-3a	4 / 009-07 MH-60S WARFIGHTER (OPERATIONAL ENHANCEMENT)				- / 35.474	- / 33.023	- / 29.930	- / 27.798	Continuing	Continuing
P-3a	5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT (SUSTAINMENT)				- / 60.809	- / 54.013	- / 50.455	- / 53.559	Continuing	Continuing
P-3a	6 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 364.029
P-40	Total Gross/Weapon System Cost				- / 135.261	- / 112.546	- / 103.493	- / 104.098	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 2020 funding request is for critical safety, obsolescence, avionics, weapons and mission system modifications. The increase from FY 2019 to FY 2020 supports the following efforts: (OSIP 001-06) Ramp up of ADTS/MMI A and B kit procurements and trainer upgrades for ADTS/MMI and System Configuration 18 to incorporate VOR/ILS capability; (OSIP 018-12) commencement of non recurring engineering efforts to address end-of-life obsolescence issues with the MH-60 Advanced Flight Control Computer and stabilator amplifier and trainer and support equipment upgrades required for the MC/FMC obsolescence effort.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series						Modification Number / Title: 1 / 009-03 SAFETY RELATED SYSTEM UPGRADE		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	72.875	0.445	9.200	2.835	0.000	2.835	3.284	3.344	3.464	3.527	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	72.875	0.445	9.200	2.835	0.000	2.835	3.284	3.344	3.464	3.527	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	72.875	0.445	9.200	2.835	0.000	2.835	3.284	3.344	3.464	3.527	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: DESCRIPTION/JUSTIFICATION: Safety Related Systems Upgrade funds modifications to improve the safety of operating MH-60 Series aircraft in all operations. In addition to those modifications specifically cited below, this Operational Safety Improvement Program provides the vehicle to expeditiously fund and correct MH-60 Series engine, airframe and avionics safety-related deficiencies (Hazard Risk Index 1-20). Future modifications will include modification of rotor damper bearings with elastomeric bearings leading to increased component life, replacing the current non-locking rescue hook with a locking rescue hook to improve safety, mandated controlled-flight-into-terrain (CFIT) avoidance systems, mandated mid-air-collision avoidance capabilities (MCAC), mandated crash data recording capabilities, improved tail gear box bevel gear mesh patterns to reduce catastrophic damage under increased load conditions, and MH-60S gunner seats. Areas of potential OSIP modifications being investigated for future improvements include: 1) Power & Propulsion systems/Engines (gearboxes, Auxiliary Power Unit (APU), T700, rotors, fuel systems, and dampers), 2) Aircrew Survivability (integration for seating, harness, hearing), and Safety issues (integration for landing gear, instrument/navigation, fuel, electrical/wiring, guns, weapons, dynamic flight control components, mission computers, Advanced Flight Control Computer (AFCS), Radar Altimeter (RADALT), crash worthy seating, emergency lighting, and hydraulic systems) and 3) Airframe/Avionics (soundproofing, landing gear, and rescue hoist, cockpit lighting/searchlights, and Airborne Low Frequency Sonar (ALFS)). Additionally, the safety modifications include aircraft avionics and mission systems that enable overland operations in degraded visual flight environments (DVE) that are associated with unimproved terrain, both day and night, and in all weather conditions. This includes terrain avoidance warning systems, precision overland navigation awareness displays, enhanced radar laser detection systems for obstacle and power line avoidance, and additional developmental items that pertain to operations in degraded visual environments. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The MH-60 series currently has 35 active Safety Action Records being monitored across all MH-60 series aircraft. As solutions become available the aircraft modifications will be implemented. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: OSIP 009-03 baseline funding decreases by \$6.4M from FY 2019 to FY 2020 due to completion of critical MH-60S Gunner Seats in FY 2019 to reduce or eliminate the detrimental impacts to the health (back injury), preservation and well being of the aircrew. Current Active Modifications: 1. T700 Engine; 2. Aircrew Survivability Kits; 3. Airframe Safety Kits; 4. Tail Gearbox Sight Gauges [OTHER SUPPORT] Cost element 3.5 (Other Support) funding is required for acquisition, configuration/documentation management, scheduling of aircraft and installation activities, engineering, and test support required to incorporate safety modifications on the MH-60R/S aircraft.												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series				Modification Number / Title: 1 / 009-03 SAFETY RELATED SYSTEM UPGRADE				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: HH-60H, MH-60R, MH-60S			Modification Type: SAFETY					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 009-03 SAFETY RELATED SYSTEM UPGRADE												
A Kits												
Recurring												
1.1.1) SH-60 Series Archived ECPs - Organic	- / 43.818	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.818
1.1.2) T700 Engine - Organic	71 / 0.140	12 / 0.271	12 / 0.271	50 / 1.149	- / -	50 / 1.149	50 / 1.170	50 / 1.191	50 / 1.212	50 / 1.234	872 / 28.207	1,217 / 34.845
1.1.3) Aircrew Survivability Kits - Organic	- / 0.061	- / -	2 / 0.341	2 / 0.347	- / -	2 / 0.347	4 / 0.709	4 / 0.723	4 / 0.798	4 / 0.814	432 / 90.411	452 / 94.204
1.1.4) Airframe Safety Kits - Organic	- / -	- / -	2 / 0.226	4 / 0.460	- / -	4 / 0.460	8 / 0.936	8 / 0.952	8 / 0.968	8 / 0.984	406 / 87.330	444 / 91.856
1.1.5) Tail Gearbox Sight Gauges - Organic	183 / 0.403	- / -	183 / 0.411	183 / 0.419	- / -	183 / 0.419	- / -	- / -	- / -	- / -	- / -	549 / 1.233
1.1.6) MH-60S Gunner Seats - Organic	- / -	- / -	69 / 7.498	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 7.498
Subtotal: Recurring	- / 44.422	- / 0.271	- / 8.747	- / 2.375	- / -	- / 2.375	- / 2.815	- / 2.866	- / 2.978	- / 3.032	- / 205.948	- / 273.454
Non-Recurring												
1.2.1) INSTALLATION KITS N/R - Organic	- / 9.588	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.588
Subtotal: Non-Recurring	- / 9.588	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 9.588
Subtotal: 009-03 SAFETY RELATED SYSTEM UPGRADE	254 / 54.010	12 / 0.271	268 / 8.747	239 / 2.375	- / -	239 / 2.375	62 / 2.815	62 / 2.866	62 / 2.978	62 / 3.032	1,710 / 205.948	2,731 / 283.042
Subtotal: Procurement, All Modification Items	- / 54.010	- / 0.271	- / 8.747	- / 2.375	- / -	- / 2.375	- / 2.815	- / 2.866	- / 2.978	- / 3.032	- / 205.948	- / 283.042
Support (All Modification Items)												
3.1) SAFETY RELATED ECO	- / 0.030	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.030
3.2) DATA	- / 1.670	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.670
3.3) TRAINING EQUIPMENT	- / 0.429	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.429
3.4) ILS	- / 0.981	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.981
3.5) OTHER SUPPORT	- / 15.755	- / 0.174	- / 0.453	- / 0.460	- / -	- / 0.460	- / 0.469	- / 0.478	- / 0.486	- / 0.495	Continuing	Continuing
Subtotal: Support	- / 18.865	- / 0.174	- / 0.453	- / 0.460	- / -	- / 0.460	- / 0.469	- / 0.478	- / 0.486	- / 0.495	Continuing	Continuing
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	72.875	0.445	9.200	2.835	0.000	2.835	3.284	3.344	3.464	3.527	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0530 / MH-60 Series	Modification Number / Title: 1 / 009-03 SAFETY RELATED SYSTEM UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: 009-03 SAFETY RELATED SYSTEM UPGRADE		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 2 / 016-04 ARMED HELO/AMCM		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	49.426	0.196	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.798
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	49.426	0.196	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.798
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	49.426	0.196	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.798
<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: DESCRIPTION/JUSTIFICATION: Based on Developmental and Operational Testing, Fleet aircraft require modifications to correct identified deficiencies incorporated in production aircraft. These modifications include corrections to Night Vision Device Exterior Lighting and Airborne Mine Countermeasures (AMCM) Mission Equipment. Current retrofit plan includes AMCM Mission Equipment which are not procured on a one-for-one basis with the A kit modifications. No install is required. Night Vision Device Capable Aircraft Lighting will be retrofitted on 134 Aircraft. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The MH-60S aircraft completed Operational Evaluation in March 2002; Milestone III was completed 12 August 2002. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: OSIP 016-04 baseline funding decreases by \$0.2M from FY 2019 to FY 2020 due to completion of efforts. FY 2019 funding for Night Vision device installation and associated support is required as a result of aircraft availability. [Other Support] Cost element 3.6 (Other Support) funding is required for acquisition, configuration/documentation management, scheduling of aircraft and installation activities required to incorporate the Armed Helo/AMCM modifications.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 2 / 016-04 ARMED HELO/AMCM			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: MH-60S				Modification Type: OPERATIONAL ENHANCEMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
Modification Item 1 of 1: 016-04 ARMED HELO/AMCM													
A Kits													
Recurring													
1.1.1) Archived ECPs - Organic	- / 33.512	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 33.512	
1.1.2) Night Vision Device (NVD) Kits - NonOrganic ⁽¹⁾	134 / 5.548	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	134 / 5.548	
Subtotal: Recurring	- / 39.060	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 39.060	
Non-Recurring													
1.2.1) Installations Kits N/R - Organic	- / 4.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.205	
Subtotal: Non-Recurring	- / 4.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.205	
Subtotal: 016-04 ARMED HELO/AMCM	134 / 43.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	134 / 43.265	
Subtotal: Procurement, All Modification Items	- / 43.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 43.265	
Support (All Modification Items)													
3.1) Engineering Change Orders	- / 0.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.099	
3.2) Data	- / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.488	
3.3) Training Equipment	- / 0.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.099	
3.5) ILS	- / 0.053	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.053	
3.6) Other Support	- / 2.209	- / 0.099	- / 0.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.407	
Subtotal: Support	- / 2.948	- / 0.099	- / 0.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.146	
Installation													
Modification Item 1 of 1: 016-04 ARMED HELO/AMCM	- / 3.213	- / 0.097	- / 0.077	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.387	
Subtotal: Installation	- / 3.213	- / 0.097	- / 0.077	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.387	
Total													
Total Cost (Procurement + Support + Installation)	49.426	0.196	0.176	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.798	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0530 / MH-60 Series										Modification Number / Title: 2 / 016-04 ARMED HELO/AMCM											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 016-04 ARMED HELO/AMCM																															
Manufacturer Information																															
Manufacturer Name: NVD Lighting--Contractor Field Mod Team															Manufacturer Location: New MFG-Loc																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Night Vision Device (NVD) Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		125 / 3.213		5 / 0.097		4 / 0.077		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		134 / 3.387					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		125 / 3.213		5 / 0.097		4 / 0.077		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		134 / 3.387					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	125	1	1	1	2	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134
Out	125	1	1	1	2	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	134
Footnotes: ⁽¹⁾ Cost element 1.1.2 (Night Vision Device) procured kits are being installed in FY 2018 and FY 2019 due to unforeseen fleet unavailability for required Planned Maintenance Interval (PMI) to complete installation.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series				Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	376.789	35.918	26.347	43.021	0.000	43.021	35.694	22.166	19.644	19.214	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	376.789	35.918	26.347	43.021	0.000	43.021	35.694	22.166	19.644	19.214	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	376.789	35.918	26.347	43.021	0.000	43.021	35.694	22.166	19.644	19.214	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:												
DESCRIPTION/JUSTIFICATION: The MH-60R provides warfighting effectiveness in the primary mission areas of Anti-Submarine Warfare, Electronic Warfare, and Surface Warfare, including fast attack craft/fast in-shore attack craft (FAC/FIAC) threat response. Secondary MH-60R mission areas include search and rescue, vertical replenishment, naval surface fire support, logistics support, naval special warfare, strike warfare, personnel transport, and medical evacuation.												
This OSIP funds modifications to the MH-60R Series aircraft to include airframe structures, avionics, weapons and mission systems.												
The land based Precision Approach Radar (PAR) is the only precision approach available to the MH-60R and is slated to be replaced by Joint Precision Approach Landing System (JPALS) at Naval Air Stations. The Very high frequency Omnidirectional Radio range (VOR) navigation capability included with the ILS system provides instrument navigation after disestablishment of Tactical Air Command and Navigation system in the Continental United States. Instrument Landing System (ILS) provides precision approach capability ashore and to supplement currently available military PAR controlled approaches.												
Automatic Radar Periscope Detection and Discriminator (ARPDD) provides the MH-60R the capability to detect very small, low visibility targets, such as periscopes and small vessels, and alert the aircrew to their presence from long distances, reducing aircrew workload and increasing battle group survivability. The AN/APS-153 MMR consists of the Signal Data Processor/ARPDD Enhanced Processor, Receiver Transmitter (R/T), Antenna Pedestal, Antenna Array, and IFF R/T retrofits. Retrofits to the IFF R/T will provide Mode 5 capability.												
Advanced Data Transfer System (ADTS) provides high-capacity storage and transfer of data with multi-level security enabling moving map integration and replacing obsolete components.												
The Acoustic Subsystem is a key component to meeting MH-60R Anti-Submarine Warfare mission requirements. The Acoustic Subsystem consists of Acoustic Processer, Airborne Low Frequency Sonar (ALFS) Transmitter/Receiver, Reeling Machines, Reeling Machine Interface Unit, Reeling Machine Control Unit, Transducer Assembly, and reel & cable. Night Vision Device improvements will incorporate enhancements to the Thunderstorm Light, ALFS Light, Recovery, Assist, Securing, and Traversing Panel, and Search Light. The MH-60R/ALFS is the primary ASW sensor in the Carrier Strike Group. ALFS reliability improvement efforts include but are not limited to the following: (1) Reeling machine sonar cable monitoring system to allow for immediate clearing of cable miswraps prior to cable damage, (2) Sonar Transmitter Receiver upgrade to provide cable uplink dynamic equalizer to increase overall usable life of the sonar cable, (3) Transducer Assembly reliability improvement: Hydraulic Motor and stave retention, and (4) Reeling Machine locking device limit switches and aux electric motor power relay.												
Aircraft Ship Integrated Secure and Traverse System (ASIST) has been cancelled due to DDG 1000 decision to not incorporate full ASIST on the ship.												
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Automatic Radar Periscope Detection and Discriminator (ARPDD) capability was approved with CPD 260-05 dated 28 November 2005. CDR was completed April 2009. Milestones include contractor test completed in December 2010, developmental test completed in December 2011, and operational test started in July 2012.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0530 / MH-60 Series	Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
METHOD OF IMPLEMENTATION: ARPDD and ADTS/MMI are "O" Level Installs. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: OSIP 001-06 baseline funding increases \$16.7M from FY 2019 to FY 2020 due to the ramp up of ADTS/MMI A and B kit procurements to provide critical storage and data transfer capability to the fleet and training equipment requirements for ADTS/MMI and System Configuration 18, which adds VOR/ILS capability to training devices, and an increase in quantity of VOR/ILS installs. [ALFS Reliability Improvements] Cost element 2.1.2 (ALFS Reliability) efforts contain different quantities and scope each year resulting in overall cost variability. [ADTS/MMI RME Kit] ADTS/MMI unit cost is more expensive on the MH-60R than the MH-60S due to the requirement for an additional digital transfer unit in each kit. [ARPDD O&A] ARPDD Over & Above requirements occur approximately two years after B kit procurement. [TRAINING EQUIPMENT] Cost element 3.3 (Training Equipment) increase in FY 2020 and FY 2021 for required System Configuration 18 and ADTS/MMI training device modifications. [OTHER SUPPORT] Cost element 3.6 (Other Support) funding is required for acquisition, configuration/documentation management, scheduling of aircraft and installation activities, engineering, and test support required to incorporate the modifications on the MH-60R aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MH-60R			Modification Type: OPERATIONAL ENHANCEMENT, RELIABILITY					Related RDT&E PEs: 0604216N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 001-06 MH-60R WARFIGHTER													
A Kits													
Recurring													
1.1.1) ARCHIVED ECPs - Organic		- / 115.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 115.709	
1.1.2) VOR INSTRUMENT LANDING SYSTEM (ILS) - NonOrganic		20 / 1.586	60 / 4.758	- / -	20 / 1.930	- / -	20 / 1.930	20 / 1.937	20 / 1.937	20 / 1.937	20 / 1.937	271 / 34.131	
1.1.3) ADTS/MMI Kit - NonOrganic		45 / 4.194	12 / 0.865	40 / 2.600	50 / 3.315	- / -	50 / 3.315	50 / 3.381	20 / 1.380	14 / 0.985	11 / 0.789	242 / 17.509	
Subtotal: Recurring		- / 121.489	- / 5.623	- / 2.600	- / 5.245	- / -	- / 5.245	- / 5.318	- / 3.317	- / 2.922	- / 2.726	- / 167.349	
B Kits													
Recurring													
2.1.1) APRDD KIT - Organic		122 / 172.485	8 / 18.352	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	130 / 190.837	
2.1.2) ALFS Reliability Improvements - Organic		322 / 5.676	60 / 0.494	60 / 0.494	40 / 0.336	- / -	40 / 0.336	40 / 0.343	- / -	- / -	- / -	522 / 7.343	
2.1.3) ADTS/MMI RME Kit - Organic		45 / 7.840	- / -	40 / 9.390	50 / 12.074	- / -	50 / 12.074	50 / 12.316	20 / 5.025	14 / 3.588	23 / 6.012	242 / 56.245	
Subtotal: Recurring		- / 186.001	- / 18.846	- / 9.884	- / 12.410	- / -	- / 12.410	- / 12.659	- / 5.025	- / 3.588	- / 6.012	- / 254.425	
Non-Recurring													
2.2.1) ARPDD O&A - Organic		- / 12.289	- / 0.824	- / 0.961	- / 0.857	- / -	- / 0.857	- / -	- / -	- / -	- / -	- / 14.931	
2.2.2) ALFS Reliability NRE - Organic		- / 2.022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.022	
Subtotal: Non-Recurring		- / 14.311	- / 0.824	- / 0.961	- / 0.857	- / -	- / 0.857	- / -	- / -	- / -	- / 0.000	- / 16.953	
Subtotal: 001-06 MH-60R WARFIGHTER		554 / 321.801	140 / 25.293	140 / 13.445	160 / 18.512	- / -	160 / 18.512	160 / 17.977	60 / 8.342	48 / 6.510	54 / 8.738	1,407 / 438.727	
Subtotal: Procurement, All Modification Items		- / 321.801	- / 25.293	- / 13.445	- / 18.512	- / -	- / 18.512	- / 17.977	- / 8.342	- / 6.510	- / 8.738	- / 438.727	
Support (All Modification Items)													
3.1) ENGINEERING CHANGE ORDERS		- / 2.849	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.849	
3.2) DATA		- / 0.712	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.712	
3.3) TRAINING EQUIPMENT		- / 0.500	- / 0.500	- / 0.601	- / 7.432	- / -	- / 7.432	- / 4.327	- / 0.414	- / 0.421	- / 0.429	Continuing	
3.4) SUPPORT EQUIPMENT		- / 0.763	- / 0.612	- / 0.624	- / 0.636	- / -	- / 0.636	- / 0.649	- / 0.661	- / 0.673	- / 0.685	Continuing	
3.5) ILS		- / 7.204	- / 2.655	- / 2.720	- / 2.700	- / -	- / 2.700	- / 2.538	- / 2.732	- / 2.834	- / 3.257	Continuing	
3.6) OTHER SUPPORT		- / 40.385	- / 6.661	- / 6.842	- / 6.975	- / -	- / 6.975	- / 7.061	- / 6.807	- / 7.040	- / 4.000	Continuing	
3.7) INTERIM CONTRACTOR SUPPORT		- / 2.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.575	
Subtotal: Support		- / 54.988	- / 10.428	- / 10.787	- / 17.743	- / -	- / 17.743	- / 14.575	- / 10.614	- / 10.968	- / 8.371	Continuing	
Installation													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series						Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: MH-60R				Modification Type: OPERATIONAL ENHANCEMENT, RELIABILITY						Related RDT&E PEs: 0604216N			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Modification Item 1 of 1: 001-06 MH-60R WARFIGHTER	- / 0.000	- / 0.197	- / 2.115	- / 6.766	- / 0.000	- / 6.766	- / 3.142	- / 3.210	- / 2.166	- / 2.105	- / 10.904	- / 30.605	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.197	- / 2.115	- / 6.766	- / -	- / 6.766	- / 3.142	- / 3.210	- / 2.166	- / 2.105	- / 10.904	- / 30.605	
Total													
Total Cost (Procurement + Support + Installation)	376.789	35.918	26.347	43.021	0.000	43.021	35.694	22.166	19.644	19.214	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Modification Item 1 of 1: 001-06 MH-60R WARFIGHTER																															
Manufacturer Information																															
Manufacturer Name: VOR/ILS--Lockheed Martin										Manufacturer Location: Owego, NY																					
Administrative Leadtime (in Months): 5										Production Leadtime (in Months): 14																					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates	Jun 2018		Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024																								
Delivery Dates	Jan 2020		May 2021	May 2022	May 2023	May 2024	May 2025																								
Manufacturer Name: ADTS/MMI--GDIT										Manufacturer Location: New Bern, NC																					
Administrative Leadtime (in Months): 1										Production Leadtime (in Months): 6																					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates	Aug 2018	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023																								
Delivery Dates	Feb 2019	May 2019	May 2020	May 2021	May 2022	May 2023	May 2024																								
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: VOR INSTRUMENT LANDING SYSTEM (ILS)																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 0.752	12 / 1.128	0 / 0.000	12 / 1.128	- / -	- / -	- / -	- / -	0 / 0.000	20 / 1.880																			
FY 2018	- / -	- / -	- / -	50 / 4.700	0 / 0.000	50 / 4.700	10 / 0.940	- / -	- / -	- / -	0 / 0.000	60 / 5.640																			
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.222	7 / 0.658	- / -	- / -	0 / 0.000	20 / 1.880																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.410	5 / 0.470	- / -	0 / 0.000	20 / 1.880																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.410	5 / 0.470	0 / 0.000	20 / 1.880																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.410	5 / 0.470	20 / 1.880																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 1.880	20 / 1.880																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	91 / 8.554	91 / 8.554																			
Total	- / -	- / -	8 / 0.752	62 / 5.828	0 / 0.000	62 / 5.828	23 / 2.162	22 / 2.068	20 / 1.880	20 / 1.880	116 / 10.904	271 / 25.474																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	20	20	10	10	-	4	9	7	-	6	9	5	-	6	9	5	-	6	9	116	271
Out	-	-	-	-	-	-	-	-	8	12	20	20	10	10	-	4	9	7	-	6	9	5	-	6	9	5	-	6	9	116	271

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0530 / MH-60 Series										Modification Number / Title: 3 / 001-06 MH-60R WARFIGHTER											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 001-06 MH-60R WARFIGHTER																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: ADTS/MMI Kit																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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		- / -	4 / 0.197	41 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	45 / 1.097																		
FY 2018		- / -	- / -	12 / 0.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	12 / 0.263																		
FY 2019		- / -	- / -	10 / 0.200	30 / 0.612	0 / 0.000	30 / 0.612	- / -	- / -	- / -	- / -	0 / 0.000	40 / 0.812																		
FY 2020		- / -	- / -	- / -	16 / 0.326	0 / 0.000	16 / 0.326	34 / 0.694	- / -	- / -	- / -	0 / 0.000	50 / 1.020																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.286	36 / 0.734	- / -	- / -	0 / 0.000	50 / 1.020																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.408	- / -	- / -	0 / 0.000	20 / 0.408																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.286	- / -	0 / 0.000	14 / 0.286																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.225	0 / 0.000	11 / 0.225																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	4 / 0.197	63 / 1.363	46 / 0.938	0 / 0.000	46 / 0.938	48 / 0.980	56 / 1.142	14 / 0.286	11 / 0.225	0 / 0.000	242 / 5.131																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	19	23	11	10	15	15	8	8	17	17	7	7	18	18	10	10	-	-	7	7	-	-	5	6	-	242
Out	-	-	-	-	4	19	23	11	10	15	15	8	8	17	17	7	7	18	18	10	10	-	-	7	7	-	-	5	6	-	242
Method of Implementation (Organic): APRDD KIT																				Installation Quantity: 130											
Method of Implementation (Organic): ALFS Reliability Improvements																				Installation Quantity: 522											
Method of Implementation (Organic): ADTS/MMI RME Kit - Not Installed																				Installation Quantity: 242											

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series				Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	266.753	27.672	60.594	40.771	0.000	40.771	35.474	33.023	29.930	27.798	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	266.753	27.672	60.594	40.771	0.000	40.771	35.474	33.023	29.930	27.798	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	266.753	27.672	60.594	40.771	0.000	40.771	35.474	33.023	29.930	27.798	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:

DESCRIPTION/JUSTIFICATION: The basic MH-60S conducts search and rescue, vertical replenishment, Humanitarian Assistance/Disaster Response, and airhead operations. Armed Helicopter and Airborne Mine Countermeasures (AMCM) have been added as primary mission areas for the MH-60S as block upgrades to the platform. Armed Helicopter upgrades provide Surface Warfare and Maritime Interdiction Operations capability to address Fast Attack Craft / Fast In-shore Attack Craft (FAC/FIAC) threat, as well as Special Warfare Support and Combat Search and Rescue. AMCM provides the Littoral Combat Ship with the airborne portion of the Mine Countermeasures Mission Package. MH-60S secondary roles include torpedo and drone recovery, noncombatant evacuation operations, and Sea Air Land (SEAL) team and Explosive Ordnance Disposal support.

This Operational Safety Improvement Program (OSIP) funds modifications to the MH-60S series airframe structures, avionics and mission systems, and provides for the retrofit of aircraft, training devices, and support equipment. Armed Helo Block 3A includes airframe provisions, removable mission kits, and trainer updates into Block 3A aircraft to provide capability against the FAC/FIAC threat and support Naval Special Warfare, and includes the following systems: Fixed Forward Firing Weapons (FFFW) guns and rockets, Helmet Display Targeting System (HDTS), and Full Motion Video capable Data Link.

ECP 4039 is required to accommodate aircraft structural loads imposed by the addition of the AMCM and Block 3 Armed Helo capabilities.

ECP H-60-111 incorporates Downed Aviator Locator System (DALs) in all Block 3 aircraft.

Advanced Data Transfer System (ADTS) provides high-capacity storage and transfer of data with multi-level security enabling moving map integration and replacing obsolete components.

Funding will support the modifications to the H-60 series aircraft that operate in the CENTCOM area of responsibility to incorporate a Distributed Aperture Infrared Countermeasure (DAIRCM) capability in order to fulfill a CENTCOM JUONS for improved Missile Warning (MW) Aircraft Survivability Equipment (ASE) with an inexhaustible countermeasure capability to pace the threat from the latest Surface to Air Weapons due to the operational environment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The MH-60S Aircraft completed Milestone III in August 2002. Armed Helo achieved Initial Operational Capability (IOC) in June 2007. AMCM: Initial Operational Test & Evaluation (IOT&E) extended to complete by FY 2021 for Littoral Combat Ship.

JUSTIFICATION FOR REQUIREMENTS AND CHANGES: OSIP 009-07 baseline funding decreases \$19.8M from FY 2019 to FY 2020 due to reduction in HDTS and ECP H-60-111 kit procurements, as well as completion of the FMV NRE effort.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0530 / MH-60 Series	Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
[HDTS RME] Changes to HDTS RME quantities are due to the increase in required Primary Aircraft Authorized (PAA) and associated squadron pilots needed to support expanded LCS deployments. Adjusting the total quantity of RME units from 120 to 181 provides HDTS capability in a sufficient number of Block 3 aircraft to meet operational and training requirements. [HDTS Helmet Tracker (HTK)] Changes to HDTS HTK quantities are due to the increase in required Primary Aircraft Authorized (PAA) and associated squadron pilots needed to support expanded LCS deployments. Adjusting the total quantity of HTK units from 480 to 868 aligns procurement with the number of pilots assigned to HSC squadrons [Training Equipment] Cost element 3.3 (Training Equipment) FY 2020 and FY 2021 funding is required for System Configuration 18 and ADTS/MMI trainer modifications. [Other Support] Cost element 3.6 (Other Support) funding is required for acquisition, configuration/documentation management, scheduling of aircraft and installation activities, engineering, and test support required to incorporate the modifications on the MH-60S aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MH-60S			Modification Type: OPERATIONAL ENHANCEMENT					Related RDT&E PEs: 0604216N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 009-07 MH-60S WARFIGHTER													
A Kits													
Recurring													
1.1.1) ARCHIVED ECPs - Organic		- / 159.213	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 159.213	
1.1.2) ECP 4039 - NonOrganic		90 / 10.314	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	90 / 10.314	
1.1.3) Data Link/FMV A Kit - NonOrganic		- / 0.383	- / -	20 / 3.800	20 / 3.876	- / -	20 / 3.876	20 / 3.954	20 / 4.033	20 / 4.113	20 / 4.195	96 / 31.190	216 / 55.544
1.1.4) HDTS A Kit - NonOrganic		52 / 2.607	26 / 1.668	26 / 1.701	18 / 1.202	- / -	18 / 1.202	24 / 1.634	24 / 1.667	24 / 1.700	13 / 0.939	- / -	207 / 13.118
1.1.5) ADTS/MMI Kits - NonOrganic		19 / 1.292	- / -	50 / 3.400	50 / 3.468	- / -	50 / 3.468	25 / 1.769	25 / 1.804	25 / 1.840	20 / 1.502	- / -	214 / 15.075
1.1.6) DAIRCM - NonOrganic		14 / 2.190	6 / 2.958	6 / 2.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 8.106
1.1.7) ECP H60-111 DALS - NonOrganic		18 / 0.265	20 / 0.374	20 / 0.374	5 / 0.093	- / -	5 / 0.093	- / -	- / -	- / -	- / -	- / -	63 / 1.106
Subtotal: Recurring		- / 176.264	- / 5.000	- / 12.233	- / 8.639	- / -	- / 8.639	- / 7.357	- / 7.504	- / 7.653	- / 6.636	- / 31.190	- / 262.476
B Kits													
Recurring													
2.1.1) Data Link/FMV RME - Organic		- / -	- / -	10 / 2.711	10 / 2.322	- / -	10 / 2.322	10 / 2.395	10 / 2.509	10 / 2.602	10 / 2.700	60 / 22.399	120 / 37.638
2.1.2) HDTS RME - Organic		52 / 14.713	26 / 6.812	26 / 6.942	12 / 3.268	- / -	12 / 3.268	24 / 6.667	24 / 6.800	11 / 3.179	6 / 1.746	- / -	181 / 50.127
2.1.3) HDTS Helmet Tracker (HTK) - Organic		376 / 11.831	63 / 1.885	100 / 3.051	60 / 1.867	- / -	60 / 1.867	60 / 1.905	60 / 1.943	60 / 1.982	89 / 2.998	- / -	868 / 27.462
2.1.4) ADTS/MMI RME Kit - Organic		19 / 2.556	- / -	50 / 6.861	50 / 6.998	- / -	50 / 6.998	25 / 3.569	25 / 3.640	25 / 3.713	20 / 3.030	- / -	214 / 30.367
Subtotal: Recurring		- / 29.100	- / 8.697	- / 19.565	- / 14.455	- / -	- / 14.455	- / 14.536	- / 14.892	- / 11.476	- / 10.474	- / 22.399	- / 145.594
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic		- / 0.603	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.603
2.2.2) Data Link/FMV NRE - Organic		- / -	- / -	- / 10.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.000
Subtotal: Non-Recurring		- / 0.603	- / -	- / 10.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 10.603
Subtotal: 009-07 MH-60S WARFIGHTER		640 / 205.967	141 / 13.697	308 / 41.798	225 / 23.094	- / -	225 / 23.094	188 / 21.893	188 / 22.396	175 / 19.129	178 / 17.110	156 / 53.589	2,199 / 418.673
Subtotal: Procurement, All Modification Items		- / 205.967	- / 13.697	- / 41.798	- / 23.094	- / -	- / 23.094	- / 21.893	- / 22.396	- / 19.129	- / 17.110	- / 53.589	- / 418.673
Support (All Modification Items)													
3.1) Engineering Change Orders		- / 0.567	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.567
3.2) Data		- / 0.317	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.317
3.3) Training Equipment		- / 4.747	- / -	- / 3.360	- / 6.541	- / -	- / 6.541	- / 3.523	- / 0.605	- / 0.618	- / 0.357	Continuing	Continuing
3.4) Support Equipment		- / 5.835	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
3.5) ILS		- / 7.654	- / 1.683	- / 1.862	- / 1.645	- / -	- / 1.645	- / 1.672	- / 1.709	- / 1.743	- / 1.887	Continuing	Continuing
3.6) Other Support		- / 22.237	- / 7.436	- / 7.866	- / 6.685	- / -	- / 6.685	- / 6.785	- / 6.728	- / 6.829	- / 6.891	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MH-60S				Modification Type: OPERATIONAL ENHANCEMENT				Related RDT&E PEs: 0604216N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
<i>Subtotal: Support</i>	- / 41.357	- / 9.119	- / 13.088	- / 14.871	- / -	- / 14.871	- / 11.980	- / 9.042	- / 9.190	- / 9.135	Continuing	Continuing	
Installation													
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER	- / 19.429	- / 4.856	- / 5.708	- / 2.806	- / 0.000	- / 2.806	- / 1.601	- / 1.585	- / 1.611	- / 1.553	- / 2.802	- / 41.951	
<i>Subtotal: Installation</i>	- / 19.429	- / 4.856	- / 5.708	- / 2.806	- / -	- / 2.806	- / 1.601	- / 1.585	- / 1.611	- / 1.553	- / 2.802	- / 41.951	
Total													
Total Cost (Procurement + Support + Installation)	266.753	27.672	60.594	40.771	0.000	40.771	35.474	33.023	29.930	27.798	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0530 / MH-60 Series		Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER							
Manufacturer Information							
Manufacturer Name: ADTS/MMI--GDIT				Manufacturer Location: New Bern, NC			
Administrative Leadtime (<i>in Months</i>): 1				Production Leadtime (<i>in Months</i>): 6			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates		Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023
Delivery Dates		May 2019	May 2020	May 2021	May 2022	May 2023	May 2024
Manufacturer Name: DAIRCM--CECOM				Manufacturer Location: Cherry Point, NC			
Administrative Leadtime (<i>in Months</i>): 4				Production Leadtime (<i>in Months</i>): 4			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Jul 2018	Feb 2019					
Delivery Dates	Nov 2018	Jun 2019					
Manufacturer Name: ECP H60-111 DALS--FRCMA/FRCWSW				Manufacturer Location: Norfolk, VA/San Diego, CA			
Administrative Leadtime (<i>in Months</i>): 1				Production Leadtime (<i>in Months</i>): 7			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Nov 2017	Nov 2018	Nov 2019				
Delivery Dates	Jun 2018	Jun 2019	Jun 2020				
Manufacturer Name: Data Link/FMV- Cubic Defense Applications, Inc.				Manufacturer Location: San Diego, CA			
Administrative Leadtime (<i>in Months</i>): 7				Production Leadtime (<i>in Months</i>): 9			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates		Jun 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023	Apr 2024
Delivery Dates		Jan 2020	Jan 2021	Oct 2021	Oct 2022	Oct 2023	Oct 2024
Manufacturer Name: ECP 4039--Sikorsky Aircraft Corporation				Manufacturer Location: Stratford, CT			
Administrative Leadtime (<i>in Months</i>): 1				Production Leadtime (<i>in Months</i>): 24			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							
Manufacturer Name: HDTS Akit--Elbit Systems of America				Manufacturer Location: Fort Worth, TX			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 10			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Jan 2018	Dec 2018	Dec 2019	Dec 2020	Dec 2021	Dec 2022	Dec 2023

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0530 / MH-60 Series											Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER										
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:																
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER																																
Manufacturer Information																																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Delivery Dates		Nov 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024						
Manufacturer Name: TBD														Manufacturer Location: TBD																		
Administrative Leadtime (<i>in Months</i>): 0														Production Leadtime (<i>in Months</i>): 0																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates																																
Delivery Dates																																
Installation Information																																
Method of Implementation: Contractor Field Mod Team:: Installation Name: ECP 4039																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)								
Prior Years		71 / 18.727		15 / 2.501		4 / 0.774		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		90 / 22.002						
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		71 / 18.727		15 / 2.501		4 / 0.774		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		90 / 22.002						
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
		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	71	4	4	3	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	
Out	71	4	4	3	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	90	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER																															
Installation Information																															
Method of Implementation: Depot Field Mod Team:: Installation Name: Data Link/FMV A Kit																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2019	- / -	- / -	- / -	8 / 0.118	0 / 0.000	8 / 0.118	12 / 0.177	- / -	- / -	- / -	0 / 0.000	20 / 0.295																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.295	- / -	- / -	- / -	0 / 0.000	20 / 0.295																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.295	- / -	- / -	0 / 0.000	20 / 0.295																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.307	- / -	0 / 0.000	20 / 0.307																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.307	0 / 0.000	20 / 0.307																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.325	20 / 0.325																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	96 / 1.880	96 / 1.880																			
Total	- / -	- / -	- / -	8 / 0.118	0 / 0.000	8 / 0.118	32 / 0.472	20 / 0.295	20 / 0.307	20 / 0.307	116 / 2.205	216 / 3.704																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	12	9	6	5	2	7	8	3	2	7	8	3	2	7	8	3	116	216
Out	-	-	-	-	-	-	-	-	-	-	2	3	3	12	9	6	5	2	7	8	3	2	7	8	3	2	7	8	3	116	216
Method of Implementation: Contractor Field Mod Team:: Installation Name: HDTS A Kit																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	24 / 0.480	28 / 0.620	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	52 / 1.100																			
FY 2018	- / -	- / -	26 / 0.749	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	26 / 0.749																			
FY 2019	- / -	- / -	- / -	26 / 0.762	0 / 0.000	26 / 0.762	- / -	- / -	- / -	- / -	0 / 0.000	26 / 0.762																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.537	- / -	- / -	- / -	0 / 0.000	18 / 0.537																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.720	- / -	- / -	0 / 0.000	24 / 0.720																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.733	- / -	0 / 0.000	24 / 0.733																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.746	0 / 0.000	24 / 0.746																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.597	13 / 0.597																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0530 / MH-60 Series										Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: HDTS A Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		24 / 0.480		28 / 0.620		26 / 0.749		26 / 0.762		0 / 0.000		26 / 0.762		18 / 0.537		24 / 0.720		24 / 0.733		24 / 0.746		13 / 0.597		207 / 5.944							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	24	4	8	8	8	6	6	7	7	9	9	8	-	6	6	6	-	8	8	8	-	8	8	8	-	8	8	8	-	13	207
Out	24	4	8	8	8	6	6	7	7	9	9	8	-	6	6	6	-	8	8	8	-	8	8	8	-	8	8	8	-	13	207
Method of Implementation: Contractor Field Mod Team:: Installation Name: ADTS/MMI Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		19 / 0.379		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		19 / 0.379							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		35 / 0.714		15 / 0.306		0 / 0.000		15 / 0.306		- / -		- / -		- / -		- / -		0 / 0.000		50 / 1.020							
FY 2020		- / -		- / -		- / -		40 / 0.816		0 / 0.000		40 / 0.816		10 / 0.204		- / -		- / -		- / -		0 / 0.000		50 / 1.020							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		19 / 0.388		6 / 0.122		- / -		- / -		0 / 0.000		25 / 0.510							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		22 / 0.448		3 / 0.061		- / -		0 / 0.000		25 / 0.509							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		25 / 0.510		- / -		0 / 0.000		25 / 0.510							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.500		0 / 0.000		20 / 0.500							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -		19 / 0.379		35 / 0.714		55 / 1.122		0 / 0.000		55 / 1.122		29 / 0.592		28 / 0.570		28 / 0.571		20 / 0.500		0 / 0.000		214 / 4.448							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	-	-	18	17	15	-	20	20	10	-	10	9	6	-	11	11	3	-	13	12	-	-	10	10	-	214
Out	-	-	-	6	13	-	-	18	17	15	-	20	20	10	-	10	9	6	-	11	11	3	-	13	12	-	-	10	10	-	214

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0530 / MH-60 Series										Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: DAIRCM																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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		- / -	14 / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	14 / 0.750																		
FY 2018		- / -	- / -	6 / 1.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	6 / 1.520																		
FY 2019		- / -	- / -	6 / 0.380	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	6 / 0.380																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	14 / 0.750	12 / 1.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	26 / 2.650																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	8	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Out	-	-	-	6	8	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Method of Implementation: Field Team:: Installation Name: ECP H60-111 DALs																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 / 0.222	15 / 0.303	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	18 / 0.525																		
FY 2018		- / -	15 / 0.303	5 / 0.393	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	20 / 0.696																		
FY 2019		- / -	- / -	15 / 1.178	5 / 0.404	0 / 0.000	5 / 0.404	- / -	- / -	- / -	- / -	0 / 0.000	20 / 1.582																		
FY 2020		- / -	- / -	- / -	5 / 0.400	0 / 0.000	5 / 0.400	- / -	- / -	- / -	- / -	0 / 0.000	5 / 0.400																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0530 / MH-60 Series										Modification Number / Title: 4 / 009-07 MH-60S WARFIGHTER											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 009-07 MH-60S WARFIGHTER																															
Installation Information																															
Method of Implementation: Field Team:: Installation Name: ECP H60-111 DALS																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)																	
Total		3 / 0.222	30 / 0.606	20 / 1.571	10 / 0.804	0 / 0.000	10 / 0.804	- / -	- / -	- / -	- / -	0 / 0.000	63 / 3.203																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	8	7	8	7	5	-	8	7	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	
Out	3	8	7	8	7	5	-	8	7	5	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	
Method of Implementation (Organic): Data Link/FMV RME - Not Installed																				Installation Quantity: 120											
Method of Implementation (Organic): HDTS RME - Not Installed																				Installation Quantity: 181											
Method of Implementation (Organic): HDTS Helmet Tracker (HTK) - Not Installed																				Installation Quantity: 868											
Method of Implementation (Organic): ADTS/MMI RME Kit - Not Installed																				Installation Quantity: 214											

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	88.461	34.880	34.403	63.170	0.000	63.170	60.809	54.013	50.455	53.559	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	88.461	34.880	34.403	63.170	0.000	63.170	60.809	54.013	50.455	53.559	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	88.461	34.880	34.403	63.170	0.000	63.170	60.809	54.013	50.455	53.559	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: DESCRIPTION/JUSTIFICATION: The MH-60 Aircraft are included in the Department of the Navy Aviation Plan through calendar year 2045. The MH-60 aircraft sustainment strategy targets initiatives to remedy the top age-related maintenance degraders fatigue life limiters, obsolescence and safety issues that impede the aircraft's ability to operate into the future. This effort will sustain the MH-60 in an affordable manner until the follow-on aircraft becomes available. The increase in this Operational Safety Improvement Program (OSIP) reflects the increasing shift towards aircraft modifications as the sole means to incorporate changes on the MH-60 Aircraft. This program implements a concentrated effort to utilize improvements to the MH-60 component obsolescence (e.g. mission computers), structural limitations (e.g. tail pylon, canted bulkhead, station 308 structural improvement), aircrew safety systems, and aircraft wiring analysis health. In order to mitigate the risk of Diminishing Manufacturing Sources and Material Shortages (DMSMS) the MH-60 program has a proactive plan to manage the risk associated with obsolescence issues. DMSMS includes material obsolescence which may occur at the part, module, component, equipment, or other system indenture level. These situations may cause material shortages that endanger MH-60 capabilities, readiness, and life cycle support. Preliminary efforts include the incorporation of system bill of materials (BOM) for active monitoring into predictive tools to prioritize and determine risk associated with possible DMSMS occurrences. When issues arise, the solution involves procurement from alternate sources, substitution of components, life of type buys, emulation of components, or ultimately system redesign requiring the modification of MH-60 systems. Obsolescence kit procurements will be focused in the areas of air vehicle, mission systems, avionics and weapons. Aircraft modification/replacement of the Single Board Computers (SBCs) in the Gen III and Gen VI Mission Computers/Flight Mission Computers in the MH-60R/S will allow for future software builds. The current computers have obsolescence issues and do not have the memory or processing speed for new software builds to include the RNP/RNAV capability. MH-60R/S is the lead platform for Multifunctional Information Distribution System (MIDS) Block Upgrade 2 (BU2), in support of Battle Group Tactical Data Link Network Centric Warfare. MH-60R/S will procure MIDS BU2 upgrades to support Federal Aviation Administration (FAA) Frequency Remapping (FR) and National Security Administration (NSA) Crypto Modernization (CM) mandates by 2020. JUSTIFICATION FOR REQUIREMENTS AND CHANGES: OSIP 018-12 baseline funding increases by \$28.8M from FY 2019 to FY 2020 to support commencement of non recurring engineering efforts to address end-of-life obsolescence issues with the MH-60 Advanced Flight Control Computer and stabilator amplifier and trainer and support equipment upgrades required for the MC/FMC obsolescence effort.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series				Modification Number / Title: 5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: HH-60H, MH-60S, MH-60R				Modification Type: SUSTAINMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT													
A Kits													
Recurring													
1.1.1) Archived ECPs - Organic		- / 9.102	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.102	
1.1.2) Obsolescence Components Kits - Organic		126 / 1.755	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	126 / 1.755	
Subtotal: Recurring		- / 10.857	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 10.857	
Non-Recurring													
1.2.1) Obsolescence Components Kits - Organic		- / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.005	
Subtotal: Non-Recurring		- / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.005	
B Kits													
Recurring													
2.1.1) Avionics B Kits - Organic ⁽²⁾		71 / 8.712	130 / 10.785	8 / 3.147	- / -	- / -	- / -	- / -	150 / 5.105	40 / 4.326	70 / 10.780	869 / 472.126 / 1,338 / 514.981	
2.1.2) Air Vehicle B Kits - Organic ⁽³⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 16.170	Continuing / Continuing	
2.1.3) Mission System B Kits - Organic ⁽⁴⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 5.390	18 / 2.162 / 53 / 7.552	
2.1.4) Weapons B Kits - Organic ⁽⁵⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 5.390	12 / 1.529 / 47 / 6.919	
2.1.5) MIDS BU2 B Kits - Organic		- / -	113 / 8.458	101 / 7.560	86 / 6.437	- / -	86 / 6.437	86 / 6.437	48 / 3.593	- / -	- / -	434 / 32.485	
2.1.6) MC/FMC B Kits - Organic		9 / 7.413	- / -	149 / 19.925	167 / 22.560	- / -	167 / 22.560	114 / 15.557	46 / 6.342	42 / 5.849	7 / 0.985	- / - / 534 / 78.631	
Subtotal: Recurring		- / 16.125	- / 19.243	- / 30.632	- / 28.997	- / -	- / 28.997	- / 21.994	- / 15.040	- / 10.175	- / 38.715	Continuing / Continuing	
Non-Recurring													
2.2.1) MH-60R/S Obsolescence NRE - Organic ⁽⁶⁾		- / 39.792	- / 1.733	- / -	- / 23.568	- / -	- / 23.568	- / 28.244	- / 34.340	- / 36.264	- / 12.250	Continuing / Continuing	
2.2.2) MC/FMC NRE - Organic		- / -	- / 10.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.250	
Subtotal: Non-Recurring		- / 39.792	- / 11.983	- / -	- / 23.568	- / -	- / 23.568	- / 28.244	- / 34.340	- / 36.264	- / 12.250	Continuing / Continuing	
Subtotal: 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT		206 / 66.779	243 / 31.226	258 / 30.632	253 / 52.565	- / -	253 / 52.565	200 / 50.238	244 / 49.380	82 / 46.439	252 / 50.965	Continuing / Continuing	
Subtotal: Procurement, All Modification Items		- / 66.779	- / 31.226	- / 30.632	- / 52.565	- / -	- / 52.565	- / 50.238	- / 49.380	- / 46.439	- / 50.965	Continuing / Continuing	
Support (All Modification Items)													
3.3) Training Equipment ⁽⁷⁾		- / -	- / -	- / 0.037	- / 0.422	- / -	- / 0.422	- / 6.703	- / 0.696	- / -	- / -	- / - / 7.858	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: HH-60H, MH-60S, MH-60R				Modification Type: SUSTAINMENT					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
3.4) Support Equipment ⁽⁸⁾	- / 6.079	- / -	- / -	- / 6.374	- / -	- / 6.374	- / -	- / -	- / -	- / -	- / -	- / 12.453	
3.5) ILS	- / 5.707	- / 0.264	- / 0.269	- / 0.275	- / -	- / 0.275	- / 0.280	- / 0.286	- / 0.292	- / 0.274	Continuing	Continuing	
3.6) Other Support ⁽⁹⁾	- / 9.896	- / 3.390	- / 3.465	- / 3.534	- / -	- / 3.534	- / 3.588	- / 3.651	- / 3.724	- / 2.320	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 21.682	- / 3.654	- / 3.771	- / 10.605	- / -	- / 10.605	- / 10.571	- / 4.633	- / 4.016	- / 2.594	Continuing	Continuing	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	88.461	34.880	34.403	63.170	0.000	63.170	60.809	54.013	50.455	53.559	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0530 / MH-60 Series	Modification Number / Title: 5 / 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: 018-12 H-60 OBSOLESCENCE AND SUSTAINMENT		
Footnotes: (2) Cost element 2.1.1 (Avionics B Kit) efforts contain different quantities and scope each year resulting in overall cost variability. Funding in FY 2022 thru FY 2024 for obsolescence efforts regarding Advanced Flight Control Computer, Stabilator amplifier, Active Vibration Control Computer, and high definition displays. (3) Cost element 2.1.2 (Air Vehicle B Kit) efforts contain different quantities and scope each year resulting in overall cost variability. Funding in FY 2024 is for obsolescence component kits for the Hydraulic Control Module, Fire Extinguisher Logic Module, and Distributor Box, Main Rotor Blade Fold. (4) Cost element 2.1.3 (Mission Systems B Kit) funding in FY 2024 is for obsolescence component kits for the RAST control panel. (5) Cost element 2.1.4 (Weapons B Kit) funding in FY 2024 is for obsolescence component kits for the Armament Control Indicator. (6) Cost Element 2.2.1 (MH-60R/S Obsolescence NRE) funding in FY 2020 and FY 2021 is for non recurring engineering to address end-of-life obsolescence issues with the MH-60 Advanced Flight Control Computer and stabilator amplifier. FY 2022 to FY 2024 funding supports end-of-life obsolescence issues with the Armament Control Indicator, Control Monitor Panel, Hydraulic Control Module, Fire Extinguisher Logic Module Assembly, Active Vibration Control Computer , Distributor Box Main Rotor Blade Fold, De-Ice Controller/System, Technical Insert Acoustic Processor, Recovery Assist Secure and Traverse Control Panel, and high definition displays. (7) Cost element 3.3 (Training Equipment) FY 2019 thru FY 2021 funding is required for Mission Computer/Flight Management Computer (MC/FMC) trainer modifications. (8) Cost Element 3.4 (Support Equipment) FY 2020 funding for Operational Test Program Set (OTPS) for mission computer. (9) Cost element 3.6 (Other Support) funding is required for acquisition, configuration/documentation management, engineering, and test support required to incorporate obsolescence modifications on the MH-60R/S aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 6 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	364.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	364.029
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	364.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	364.029
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	364.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	364.029
<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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0530 / MH-60 Series					Modification Number / Title: 6 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 364.029	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 364.029	
Subtotal: Procurement	- / 364.029	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 364.029	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	364.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	364.029	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0532 / H-1 Series					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: 0604245N				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	506.594	99.124	87.143	114.059	0.000	114.059	193.021	182.392	211.986	216.224	702.823	2,313.366
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	506.594	99.124	87.143	114.059	0.000	114.059	193.021	182.392	211.986	216.224	702.823	2,313.366
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	506.594	99.124	87.143	114.059	0.000	114.059	193.021	182.392	211.986	216.224	702.823	2,313.366
<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: This line item funds modifications to the UH-1Y and AH-1W/Z aircraft and related systems. The overall goals associated with these modifications are to reduce the total cost of ownership while improving ready-based aircraft and ready-for-tasking rates, eliminate safety hazards, improve survivability, fulfill operational requirements, remedy obsolescence, and sustain/improve mission capability in support of the Marine Air Ground Task Force and joint operations worldwide. The H-1 Series modifications within this line item are grouped into three focus areas: H-1 Avionics Improvements (OSIP 015-12), H-1 Sensors and Weapons Improvements (OSIP 016-12), and H-1 Air Vehicle Improvements (OSIP 013-14). The mission of the UH-1Y utility helicopter is to provide command and control and combat assault support under day/night and adverse weather conditions and special operations support: supporting arms coordination and aeromedical evacuation. The H-1 aircraft provide local civilian and military search and rescue support, as well as augmenting Department of Homeland Security resources. The AH-1W/Z are tandem-seat, two-place attack helicopters. The mission of the AH-1W/Z attack helicopter is to provide rotary wing close air support, anti-armor, armed escort, armed/visual reconnaissance, anti-helicopter and point air defense and fire support coordination during day/night conditions. The current armament of the AH-1W/Z includes the Sidewinder and Hellfire missile systems, a chin-mounted 20mm turret gun, and a wide variety of forward-firing and gravity-released external stores. The aircraft inventory objective for the UH-1Y for FY 2020 is projected to be 155 aircraft. The aircraft inventory objective for the AH-1Z for FY 2020 is projected to be 151 aircraft. The aircraft inventory objective for the AH-1W for FY 2020 is projected to be 16 aircraft.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0532 / H-1 Series				
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A			Other Related Program Elements: 0604245N			
Line Item MDAP/MAIS Code: N/A										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12) (Operational Improvement)				- / 75.701	- / 36.301	- / 46.703	- / 53.530	- / 0.000	- / 53.530
P-3a	2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12) (Operational Improvement)				- / 84.243	- / 4.109	- / 20.999	- / 19.980	- / 0.000	- / 19.980
P-3a	3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14) (Safety/Reliability Improvements)				- / 61.621	- / 58.714	- / 19.441	- / 40.549	- / 0.000	- / 40.549
P-3a	4 / INACTIVE OSIPS (TBD)				- / 285.029	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 506.594	- / 99.124	- / 87.143	- / 114.059	- / 0.000	- / 114.059
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12) (Operational Improvement)				- / 77.104	- / 64.087	- / 52.133	- / 79.955	- / 266.562	- / 752.076
P-3a	2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12) (Operational Improvement)				- / 37.594	- / 24.282	- / 68.652	- / 54.075	- / 168.786	- / 482.720
P-3a	3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14) (Safety/Reliability Improvements)				- / 78.323	- / 94.023	- / 91.201	- / 82.194	- / 267.475	- / 793.541
P-3a	4 / INACTIVE OSIPS (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 285.029
P-40	Total Gross/Weapon System Cost				- / 193.021	- / 182.392	- / 211.986	- / 216.224	- / 702.823	- / 2,313.366
*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 2020 budget request modifies the UH-1Y and AH-1Z aircraft and related air vehicle, avionics, sensors, and weapons systems. Funding increase from FY 2019 and FY 2020 supports Dynamic Components (Rotor Brakes, Main Rotor Gearbox, Tiltball, Main Rotor Mast, DI-Full Motion Video, and Mission Computers).										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	75.701	36.301	46.703	53.530	0.000	53.530	77.104	64.087	52.133	79.955	266.562	752.076
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	75.701	36.301	46.703	53.530	0.000	53.530	77.104	64.087	52.133	79.955	266.562	752.076
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	75.701	36.301	46.703	53.530	0.000	53.530	77.104	64.087	52.133	79.955	266.562	752.076
<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: This Operational Safety and Improvement Program (OSIP) incorporates changes to H-1 avionics systems, specifically attacking the highest readiness degraders to reduce the total cost of ownership while improving ready based aircraft and ready- for-tasking rates. Improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), and readiness degrader items will yield a more interoperable and survivable H-1 force to sustain warfighter capability in support of worldwide operations. Systems modified and improved on H-1 aircraft will leverage common architectures and utilize existing technology to the maximum extent practicable to minimize development and procurement costs and to reduce the time to field the modifications. Specific systems associated with this OSIP are: Mission Computer, Mission Computer Harness for improved video, Digital Map, Flight Control Computer, Wiring Integration Remote Terminals, flight data recorders, maintenance data recorders, video recorders, Digital Video Recorders (DVR), data loaders, air data systems, Multi-Function Displays (MFD), Smart Displays, Dual Function Displays (DFD), interoperable video and digital data links (Tactical Video Data Links and Full Motion Video (FMV)) for Variable Message Format with an Aircraft Network Switch, Data Transfer System and Data Storage Unit. Communication systems, Mobile User Objective System (MUOS), Wireless Inter-Communications Systems (WICS), Identification Friend or Foe system, Inertial Navigation System, Global Positioning System (GPS) Inertial (EGI), Aircraft Dependent Surveillance Broadcast (ADS-B), Selective Availability Anti-Spoofing Module (SAASM), GPS non-precision approach capability and GPS signal protection efforts such as Anti-Jam Antenna, radar altimeter, Blue Force Tracker, and Joint Battlefield Command - Platform (JBC-P). Safety system modifications are required for DFD knob, collision avoidance systems, Degraded Visual Environment, Ground Proximity Warning System, Terrain Awareness Warning System, Crash Survivable Flight Incident Recorder, Improved Vehicle Health and Monitoring System (IMD HUMS) and the Enhanced Digital Ground Station (EDGS) along with Military Flight Operations Quality Assurance. System Configuration Set (SCS) updates are required for avionics component upgrades and interface modifications to ensure integration of platform weapons and sensors. Other focus areas will include Weapon Repairable Assembly modifications to improve avionics and weapons system reliability, maintainability, accuracy and interoperability.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH-1Y, AH-1W/Z				Modification Type: Operational Improvement				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Digital Interoperability-Data Link (UH-1Y/AH-1Z) - NonOrganic Installation 1 of 7	- / -	- / -	2 / 0.200	12 / 1.212	- / -	12 / 1.212	48 / 4.896	24 / 2.472	42 / 4.368	42 / 4.410	179 / 18.868	349 / 36.426	
1.1.2) DI-Full Motion Video (FMV) Phase 1.0 (UH-1Y/AH-1Z) - NonOrganic ⁽¹⁾ Installation 2 of 7	29 / 5.604	18 / 0.504	24 / 0.672	20 / 0.560	- / -	20 / 0.560	19 / 0.532	- / -	- / -	- / -	- / -	110 / 7.872	
1.1.3) DI-Full Motion Video (FMV) Phase 2.0 (UH-1Y/AH-1Z) - NonOrganic ⁽²⁾ Installation 3 of 7	- / -	- / -	- / -	8 / 0.880	- / -	8 / 0.880	22 / 2.464	18 / 2.052	- / -	- / -	- / -	48 / 5.396	
1.1.4) Wireless Internal Communication System (WICS) (UH-1Y) - Organic ^(*)	- / -	- / -	- / -	4 / 0.104	- / -	4 / 0.104	8 / 0.224	20 / 0.600	8 / 0.256	8 / 0.272	116 / 4.176	164 / 5.632	
1.1.5) Aircraft Network Switch (ANS) (UH-1Y/AH-1Z) - NonOrganic Installation 4 of 7	5 / 0.014	- / -	31 / 0.095	48 / 0.149	- / -	48 / 0.149	48 / 0.152	60 / 0.194	50 / 0.165	51 / 0.172	- / -	293 / 0.941	
1.1.6) Advanced Data Transfer System (ADTS) (UH-1Y/AH-1Z) - NonOrganic Installation 5 of 7	5 / 0.055	- / -	31 / 0.372	48 / 0.588	- / -	48 / 0.588	48 / 0.599	60 / 0.764	50 / 0.649	51 / 0.676	- / -	293 / 3.703	
1.1.7) Digital Video Recorder (DVR) (UH-1Y/AH-1Z) - Organic ^(*)	99 / 0.319	25 / 0.085	20 / 0.070	20 / 0.071	- / -	20 / 0.071	- / -	- / -	- / -	- / -	- / -	164 / 0.545	
1.1.8) Mission Computer (MC) Harness (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	32 / 1.280	60 / 2.400	- / -	60 / 2.400	60 / 2.400	50 / 2.000	50 / 2.000	97 / 3.880	- / -	349 / 13.960	
1.1.9) Embedded GPS Inertial (EGI) Navigation Upgrade (UH-1Y/ AH-1Z) - NonOrganic Installation 6 of 7	- / -	- / -	2 / 0.100	2 / 0.102	- / -	2 / 0.102	8 / 0.416	32 / 1.697	32 / 1.730	32 / 1.763	241 / 13.521	349 / 19.329	
1.1.10) High Definition Smart Displays (UH-1Y/AH-1Z) - NonOrganic Installation 7 of 7	- / -	- / -	2 / 0.060	24 / 0.734	- / -	24 / 0.734	48 / 1.498	48 / 1.528	24 / 0.779	48 / 1.559	155 / 5.115	349 / 11.273	
1.1.11) ARC-210 Gen 6 RT-2036 Mobile User Objective System (MUOUS) (UH-1Y) - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.832	16 / 1.696	36 / 3.888	36 / 3.960	68 / 7.616	164 / 17.992	
1.1.12) Global Positioning System (GPS) Anti Jam (UH-1Y/ AH-1Z) - Organic ^(*)	- / -	- / -	16 / 0.560	32 / 1.142	- / -	32 / 1.142	48 / 1.748	48 / 1.783	48 / 1.818	48 / 1.855	109 / 4.469	349 / 13.375	
1.1.13) Archived Mods - Organic ^(*)	8 / 3.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.235	
1.2.1) Installation Kits N/R - Organic ^{(*) (3)}	- / 14.045	- / 4.771	- / 1.213	- / 1.946	- / -	- / 1.946	- / 1.382	- / 1.206	- / 1.100	- / 1.073	- / 2.686	- / 29.422	
2.1.1) Digital Interoperability-Data Link (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	2 / 0.216	12 / 1.320	- / -	12 / 1.320	48 / 5.376	24 / 2.736	42 / 4.872	42 / 4.956	179 / 21.360	349 / 40.836	
2.1.2) DI-Full Motion Video (FMV) Phase 1.0 (UH-1Y/AH-1Z) - Organic ^(*)	29 / 5.076	30 / 7.950	24 / 6.360	20 / 5.300	- / -	20 / 5.300	2 / 0.530	- / -	- / -	- / -	- / -	105 / 25.216	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH-1Y, AH-1W/Z			Modification Type: Operational Improvement					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.3) DI-Full Motion Video (FMV) Phase 2.0 (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	- / -	8 / 2.440	- / -	8 / 2.440	22 / 6.842	18 / 5.706	- / -	- / -	- / -	48 / 14.988	
2.1.4) Wireless Internal Communication System (WICS) (UH-1Y) - Organic ^(*)	- / -	- / -	- / -	4 / 0.140	- / -	4 / 0.140	8 / 0.288	20 / 0.740	8 / 0.304	8 / 0.312	116 / 4.640	164 / 6.424	
2.1.5) Aircraft Network Switch (ANS) (UH-1Y/AH-1Z) - Organic ^(*)	5 / 0.033	- / -	31 / 0.214	48 / 0.338	- / -	48 / 0.338	48 / 0.345	60 / 0.439	50 / 0.373	51 / 0.388	- / -	293 / 2.130	
2.1.6) Advanced Data Transfer System (ADTS) (UH-1Y/AH-1Z) - Organic ^(*)	5 / 0.395	- / -	31 / 2.573	48 / 4.064	- / -	48 / 4.064	48 / 4.145	60 / 5.285	50 / 4.492	51 / 4.673	- / -	293 / 25.627	
2.1.7) Digital Video Recorder (DVR) (UH-1Y/AH-1Z) - Organic ^(*) (4)	68 / 3.196	40 / 0.192	27 / 0.133	27 / 0.136	- / -	27 / 0.136	2 / 0.012	- / -	- / -	- / -	- / -	164 / 3.669	
2.1.8) Mission Computer (MC) Retrofit (UH-1Y/AH-1Z) - Organic ^(*)	- / -	40 / 8.120	28 / 5.712	10 / 2.050	- / -	10 / 2.050	58 / 11.948	13 / 2.691	2 / 0.416	61 / 12.749	246 / 52.710	458 / 96.396	
2.1.9) High Definition Smart Displays (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	8 / 0.592	96 / 7.200	- / -	96 / 7.200	192 / 14.592	192 / 14.784	122 / 9.516	192 / 15.168	598 / 47.840	1,400 / 109.692	
2.1.10) ARC-210 Gen 6 RT-2036 Mobile User Objective System (MUOUS) (UH-1Y) - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.752	16 / 1.536	36 / 3.528	36 / 3.600	68 / 6.936	164 / 16.352	
2.1.11) Global Positioning System (GPS) Anti Jam (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	16 / 0.416	32 / 0.849	- / -	32 / 0.849	48 / 1.298	48 / 1.324	48 / 1.351	48 / 1.378	109 / 4.142	349 / 10.758	
2.1.12) Embedded GPS Inertial (EGI) Navigation Upgrade (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	2 / 0.250	2 / 0.254	- / -	2 / 0.254	8 / 1.032	32 / 4.192	32 / 4.256	32 / 4.320	241 / 33.017	349 / 47.321	
2.1.13) Multi-Function Display (MFD) (UH-1Y/AH-1Z) - Organic ^(*)	- / -	180 / 4.500	730 / 18.980	272 / 7.213	- / -	272 / 7.213	- / -	- / -	- / -	218 / 6.257	- / -	1,400 / 36.950	
2.1.14) Crash Survivable Recorder (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	- / -	8 / 0.128	- / -	8 / 0.128	8 / 0.136	8 / 0.144	8 / 0.152	8 / 0.160	309 / 6.489	349 / 7.209	
2.1.15) Archived Mods - Organic ^(*)	156 / 12.415	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	156 / 12.415	
2.2.1) Installation Equipment N/R - Organic ^(*) (5)	- / 20.831	- / 6.540	- / 0.650	- / 4.478	- / -	- / 4.478	- / 3.177	- / 1.218	- / 0.694	- / 0.487	- / 14.785	- / 52.860	
Subtotal: Procurement	- / 65.218	- / 32.662	- / 40.718	- / 45.798	- / -	- / 45.798	- / 67.616	- / 56.787	- / 46.707	- / 74.068	- / 248.370	- / 677.944	
Support													
3.1) Engineering Change Orders	- / 0.001	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	
3.2) Data (6)	- / 2.984	- / 0.239	- / 0.221	- / 0.568	- / -	- / 0.568	- / 0.263	- / 0.335	- / -	- / -	- / -	- / 4.610	
3.3) Training Equipment	- / 0.155	- / 0.096	- / 0.045	- / 0.092	- / -	- / 0.092	- / 0.080	- / 0.075	- / 0.050	- / 0.050	- / 1.951	- / 2.594	
3.4) Support Equipment (7)	- / 1.125	- / 0.105	- / 0.045	- / 0.188	- / -	- / 0.188	- / 0.269	- / 0.095	- / 0.050	- / 0.050	- / 0.050	- / 1.977	
3.5) ILS (8)	- / 0.815	- / 0.276	- / 0.265	- / 0.420	- / -	- / 0.420	- / 0.423	- / 0.427	- / 0.430	- / 0.434	- / 1.112	- / 4.602	
3.6) Other Support (9)	- / 3.957	- / 0.763	- / 1.145	- / 1.032	- / -	- / 1.032	- / 1.113	- / 1.136	- / 1.152	- / 1.172	- / 4.371	- / 15.841	
Subtotal: Support	- / 9.037	- / 1.479	- / 1.721	- / 2.300	- / -	- / 2.300	- / 2.148	- / 2.068	- / 1.682	- / 1.706	- / 7.484	- / 29.625	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series						Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: UH-1Y, AH-1W/Z				Modification Type: Operational Improvement				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation													
Installation 1 of 7: Digital Interoperability-Data Link (UH-1Y/AH-1Z)	- / -	- / -	- / 0.033	- / 0.204	- / 0.000	- / 0.204	- / 0.840	- / 0.432	- / 0.770	- / 0.770	- / 3.580	- / 6.629	
Installation 2 of 7: DI-Full Motion Video (FMV) Phase 1.0 (UH-1Y/AH-1Z)	- / 1.271	- / 2.160	- / 3.024	- / 2.520	- / 0.000	- / 2.520	- / 2.280	- / -	- / -	- / -	- / 0.000	- / 11.255	
Installation 3 of 7: DI-Full Motion Video (FMV) Phase 2.0 (UH-1Y/AH-1Z)	- / -	- / -	- / -	- / 0.480	- / 0.000	- / 0.480	- / 1.452	- / 1.080	- / -	- / -	- / 0.000	- / 3.012	
Installation 4 of 7: Aircraft Network Switch (ANS) (UH-1Y/AH-1Z)	- / 0.050	- / -	- / 0.341	- / 0.552	- / 0.000	- / 0.552	- / 0.576	- / 0.750	- / 0.650	- / 0.663	- / 0.000	- / 3.582	
Installation 5 of 7: Advanced Data Transfer System (ADTS) (UH-1Y/AH-1Z)	- / 0.125	- / -	- / 0.806	- / 1.272	- / 0.000	- / 1.272	- / 1.296	- / 1.650	- / 1.400	- / 1.428	- / 0.000	- / 7.977	
Installation 6 of 7: Embedded GPS Inertial (EGI) Navigation Upgrade (UH-1Y/AH-1Z)	- / -	- / -	- / 0.030	- / 0.032	- / 0.000	- / 0.032	- / 0.128	- / 0.528	- / 0.528	- / 0.528	- / 4.338	- / 6.112	
Installation 7 of 7: High Definition Smart Displays (UH-1Y/AH-1Z)	- / -	- / -	- / 0.030	- / 0.372	- / 0.000	- / 0.372	- / 0.768	- / 0.792	- / 0.396	- / 0.792	- / 2.790	- / 5.940	
Subtotal: Installation	- / 1.446	- / 2.160	- / 4.264	- / 5.432	- / -	- / 5.432	- / 7.340	- / 5.232	- / 3.744	- / 4.181	- / 10.708	- / 44.507	
Total													
Total Cost (Procurement + Support + Installation)	75.701	36.301	46.703	53.530	0.000	53.530	77.104	64.087	52.133	79.955	266.562	752.076	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 7: Digital Interoperability-Data Link (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: TBD -Digital Interoperability															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023					
Delivery Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Digital Interoperability-Data Link (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		2 / 0.033		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.033					
FY 2020		- / -		- / -		- / -		12 / 0.204		0 / 0.000		12 / 0.204		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.204					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.840		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.840					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.432		- / -		- / -		- / -		0 / 0.000		24 / 0.432					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		42 / 0.770		- / -		- / -		0 / 0.000		42 / 0.770					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		42 / 0.770		- / -		0 / 0.000		42 / 0.770					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		179 / 3.580		179 / 3.580					
Total		- / -		- / -		2 / 0.033		12 / 0.204		0 / 0.000		12 / 0.204		48 / 0.840		24 / 0.432		42 / 0.770		42 / 0.770		- / -		179 / 3.580		349 / 6.629					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	4	4	4	-	16	16	16	-	8	8	8	-	13	14	15	-	13	14	15	179	349
Out	-	-	-	-	-	-	-	1	1	-	-	4	4	4	-	16	16	16	-	8	8	8	-	13	14	15	-	13	14	194	349

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 7: DI-Full Motion Video (FMV) Phase 1.0 (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: J.F.Taylor Full Motion Video (FMV) Phase 1.0															Manufacturer Location: Camp Pendleton, California																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020																	
Delivery Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021																	
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: DI-Full Motion Video (FMV) Phase 1.0 (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		29 / 1.271		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		29 / 1.271					
FY 2018		- / -		18 / 2.160		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 2.160					
FY 2019		- / -		- / -		24 / 3.024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 3.024					
FY 2020		- / -		- / -		- / -		20 / 2.520		0 / 0.000		20 / 2.520		- / -		- / -		- / -		- / -		- / -		0 / 0.000		20 / 2.520					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		19 / 2.280		- / -		- / -		- / -		- / -		0 / 0.000		19 / 2.280					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		29 / 1.271		18 / 2.160		24 / 3.024		20 / 2.520		0 / 0.000		20 / 2.520		19 / 2.280		- / -		- / -		- / -		- / -		0 / 0.000		110 / 11.255					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	29	-	6	6	6	-	8	8	8	-	6	7	7	-	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	110
Out	21	8	-	6	6	6	-	8	8	8	-	6	7	7	-	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	110

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 7: DI-Full Motion Video (FMV) Phase 2.0 (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: TBD - DI Full Motion Video (FMV) Phase 2.0															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Oct 2019				Oct 2020				Oct 2021													
Delivery Dates										Mar 2020				Mar 2021				Mar 2022													
Installation Information																															
Method of Implementation: Contractor Field Mod Team (CFMT):: Installation Name: DI-Full Motion Video (FMV) Phase 2.0 (UH-1Y/AH																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		8 / 0.480		0 / 0.000		8 / 0.480		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.480					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		22 / 1.452		- / -		- / -		- / -		- / -		0 / 0.000		22 / 1.452					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 1.080		- / -		- / -		- / -		0 / 0.000		18 / 1.080					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		8 / 0.480		0 / 0.000		8 / 0.480		22 / 1.452		18 / 1.080		- / -		- / -		- / -		0 / 0.000		48 / 3.012					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	7	7	8	-	6	6	6	-	-	-	-	-	-	-	-	-	48
Out	-	-	-	-	-	-	-	-	-	-	-	3	3	2	-	7	7	8	-	6	6	6	-	-	-	-	-	-	-	-	48

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 7: Aircraft Network Switch (ANS) (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: Bell Helicopter-Aircraft Network Switch															Manufacturer Location: Dallas, TX																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023					
Delivery Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Aircraft Network Switch (ANS) (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		5 / 0.050		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.050							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		31 / 0.341		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		31 / 0.341							
FY 2020		- / -		- / -		- / -		48 / 0.552		0 / 0.000		48 / 0.552		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.552							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.576		- / -		- / -		- / -		0 / 0.000		48 / 0.576							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.750		- / -		- / -		0 / 0.000		60 / 0.750							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 0.650		- / -		0 / 0.000		50 / 0.650							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		51 / 0.663		0 / 0.000		51 / 0.663							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		5 / 0.050		- / -		31 / 0.341		48 / 0.552		0 / 0.000		48 / 0.552		48 / 0.576		60 / 0.750		50 / 0.650		51 / 0.663		0 / 0.000		293 / 3.582							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	10	10	11	-	16	16	16	-	16	16	16	-	20	20	20	-	17	17	16	-	17	17	17	-	293
Out	5	-	-	-	-	-	-	10	10	11	-	16	16	16	-	16	16	16	-	20	20	20	-	17	17	16	-	17	17	17	293

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 7: Advanced Data Transfer System (ADTS) (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: Physical Optics Corporation														Manufacturer Location: California																	
Administrative Leadtime (in Months): 1														Production Leadtime (in Months): 5																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023					
Delivery Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Advanced Data Transfer System (ADTS) (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.125		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.125					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		31 / 0.806		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		31 / 0.806					
FY 2020		- / -		- / -		- / -		48 / 1.272		0 / 0.000		48 / 1.272		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 1.272					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		48 / 1.296		- / -		- / -		- / -		- / -		0 / 0.000		48 / 1.296					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 1.650		- / -		- / -		- / -		0 / 0.000		60 / 1.650					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.400		- / -		- / -		0 / 0.000		50 / 1.400					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		51 / 1.428		- / -		0 / 0.000		51 / 1.428					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		5 / 0.125		- / -		31 / 0.806		48 / 1.272		0 / 0.000		48 / 1.272		48 / 1.296		60 / 1.650		50 / 1.400		51 / 1.428		0 / 0.000		293 / 7.977							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	10	10	11	-	16	16	16	-	16	16	16	-	20	20	20	-	17	17	16	-	17	17	17	-	293
Out	5	-	-	-	-	-	-	10	10	11	-	16	16	16	-	16	16	16	-	20	20	20	-	17	17	16	-	17	17	17	293

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy												Date: March 2019																			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)											
ID Code (A=Service Ready, B=Not Service Ready) :														MDAP/MAIS Code:																	
Installation 6 of 7: Embedded GPS Inertial (EGI) Navigation Upgrade (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: TBD - Embedded GPS Inertial (EGI) Nav Upgrade														Manufacturer Location: TBD																	
Administrative Leadtime (<i>in Months</i>): 3														Production Leadtime (<i>in Months</i>): 6																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates						Jun 2019				Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team (CFMT):: Installation Name: Embedded GPS Inertial (EGI) Navigation Upgrade																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		2 / 0.030		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.030					
FY 2020		- / -		- / -		- / -		2 / 0.032		0 / 0.000		2 / 0.032		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.032					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.128		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.128					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 0.528		- / -		- / -		- / -		0 / 0.000		32 / 0.528					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 0.528		- / -		- / -		0 / 0.000		32 / 0.528					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 0.528		- / -		0 / 0.000		32 / 0.528					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		241 / 4.338		241 / 4.338					
Total		- / -		- / -		2 / 0.030		2 / 0.032		0 / 0.000		2 / 0.032		8 / 0.128		32 / 0.528		32 / 0.528		32 / 0.528		32 / 0.528		241 / 4.338		349 / 6.112					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	-	-	16	16	-	-	16	16	-	-	16	16	241	349
Out	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	4	4	-	-	16	16	-	-	16	16	-	-	16	257	349

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 7 of 7: High Definition Smart Displays (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: TBD - High Definition Smart Displays										Manufacturer Location: TBD																					
Administrative Leadtime (<i>in Months</i>): 3										Production Leadtime (<i>in Months</i>): 4																					
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates					Dec 2018			Dec 2019			Dec 2020			Dec 2021						Dec 2023											
Delivery Dates					Apr 2019			Apr 2020			Apr 2021			Apr 2022						Apr 2024											
Installation Information																															
Method of Implementation: Contractor Field Mod Team (CFMT):: Installation Name: High Definition Smart Displays (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		2 / 0.030		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.030								
FY 2020		- / -	- / -		- / -		24 / 0.372		0 / 0.000		24 / 0.372		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.372								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		48 / 0.768		- / -		- / -		- / -		0 / 0.000		48 / 0.768								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.792		- / -		- / -		0 / 0.000		48 / 0.792								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.396		- / -		0 / 0.000		24 / 0.396								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.792		0 / 0.000		48 / 0.792								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		155 / 2.790		155 / 2.790								
Total		- / -	- / -		2 / 0.030		24 / 0.372		0 / 0.000		24 / 0.372		48 / 0.768		48 / 0.792		24 / 0.396		48 / 0.792		155 / 2.790		349 / 5.940								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	12	12	-	-	24	24	-	-	24	24	-	-	12	12	-	-	24	24	155	349
Out	-	-	-	-	-	-	-	-	1	1	-	-	12	12	-	-	24	24	-	-	24	24	-	-	12	12	-	-	24	179	349
Footnotes: ⁽¹⁾ DI Full Motion Video (FMV) supports Urgent Universal Needs Statement (UUNS) CDTs# 11061UA. The separation of DI-FMV was made to reflect a phase 1 which includes a 2 tail-mounted antennas and a carry-on ANW2 waveform capability, which provides an interim capability to meet the UUNS.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0532 / H-1 Series	Modification Number / Title: 1 / H-1 AVIONICS IMPROVEMENTS (OSIP 015-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(2) The separation of DI-FMV was made to reflect a Phase 2 due to the increased costs associated with adding an additional antenna to provide FMV coverage forward of the aircraft, and integrating the ANW2 waveform capability as a permanent solution. (3) FY 2020 Installation Kits N/R is required for EGI engineering. FY 2020 also supports modifications for FMV, ADTS, MC, Link 16 and ANWS2 integration. (4) Contract award; fact of life (5) FY 2020 Installation Equipment N/R increase is due to modifications for High Definition Smart Displays, ARC-210 Gen 6, Crash Survivable Recorder, Wireless Internal Communication System as well as DI-FMV Phase 2, ADTS/ANS, MC, Link 16 and ANWS2 integration. (6) FY 2020 Data is required for Embedded GPS Inertial (EGI). (7) Increase in FY 2020 is due to MC, EGI, SATCOM, High Definition Smart Displays and GPS. (8) Increase in FY 2020 is due to MC, EGI, SATCOM, High Definition Smart Displays and GPS. (9) Increase in FY 2021 is due to MC, EGI, SATCOM, High Definition Smart Displays and GPS.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series				Modification Number / Title: 2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	84.243	4.109	20.999	19.980	0.000	19.980	37.594	24.282	68.652	54.075	168.786	482.720
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	84.243	4.109	20.999	19.980	0.000	19.980	37.594	24.282	68.652	54.075	168.786	482.720
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	84.243	4.109	20.999	19.980	0.000	19.980	37.594	24.282	68.652	54.075	168.786	482.720
(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 Operational Safety and Improvement Program (OSIP) incorporates changes to H-1 mission systems sensors, Helmet Mounted Sight Displays (HMSD), Aircraft Survivability Equipment (ASE), and weapon systems, specifically attacking the highest readiness degraders to reduce the total cost of ownership while improving ready-based aircraft and ready-for-tasking rates. Improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), aircrew situational awareness and readiness degrader items will yield a more interoperable and survivable H-1 force to sustain warfighter capability in support of worldwide operations. Systems modified and improved on H-1 aircraft will leverage common avionics architectures to the extent possible to mitigate development, procurement costs and fielding timelines. The modifications will specifically address enhancing capabilities, readiness and sensor fusion with the entire ASE, HMSD, and weapons suite to improve both battlefield and situational awareness.

This OSIP addresses the U.S. Marine Corps' operational requirement to detect, identify, and destroy target sets with the precision guided munitions during day, night, and adverse weather conditions. Sensor systems include the Target Sight System (TSS), and BRITE Star Block II, which currently provide a night/adverse weather Forward-Looking Infrared and laser designation for the H-1 series helicopter. Improvements to H-1 series helicopters' weapons systems include both air to ground and air to air missiles, rocket systems, 20mm turreted gun system reliability/obsolescence and weapons accuracy improvement efforts. These weapon systems include all Precision Guided Munitions, (Advanced Precision Kill Weapon System (APKWS), the Hellfire family of missiles, inclusive of the M299 Hellfire launcher and the Joint Air To Ground (JAGM), AIM-9X integration, the M197 20MM Turreted Gun System, associated Aviation Armament Equipment (AAE), 20MM Linkless Feed System (LFS), crew served weapons Helicopter Armament Systems (HAS), and the Digital Rocket Launcher (DRL) and associated Airborne Weapon Support Equipment (AWSE). Helmet Mounted Sight and Display (HMSD) system, improvements to the Optimized Top Owl (OTO), include Night and Day Module Optic Reliability Improvements, helmet to aircraft integration improvements as well as helmet mapping improvements. HMSD safety initiatives addressed by this OSIP include, but not limited to, spatial disorientation issues caused by Degraded Visual Environments (DVE), human factor improvements to helmet design, integration and optics improvements. For Sensor Improvements, this OSIP will address TSS Block Upgrades/Modifications to add a Laser Spot Tracker (LST) capability to detect, acquire and track laser designator signatures; Infra-Red (IR) laser pointing devices; add a high definition camera/telescope to increase detection, recognition, and identification ranges. This improvement will upgrade existing gimbal processors, optimize program security initiatives, address AC network and data link capabilities as well as improve upon overall HMSD, weapon and sensor fusion to improve weapons accuracy. The H-1 Upgrades Aircraft Survivability Equipment (ASE) suite currently consists of the AN/APR-39B(V)2 RWR, AAR-47B(V)2 Missile Warning Systems (MWS) and the AN/ALE-47 Countermeasures Dispensing System (CMDS). The AN/APR-39B(V)2 currently installed in the AH-1Z and UH-1Y is obsolete and must be replaced by the AN/APR-39D(V)2. In addition to the radar detection upgrades of the APR-39D(V)2, IR detection and countermeasures upgrades will be implemented with the integration of the Distributed Aperture Infrared Countermeasures (DAIRCM) system, and processor upgrades in the ALE-47 countermeasures dispensing set. ASE Suite upgrades are inherent to successful Digital Interoperability and Electronic Warfare (EW) initiatives, such as the integration of the Intrepid Tiger (IT II), that will ensure the H-1 platform can effectively meet network ready requirements. The interoperability with other battle management systems, provides aircrew with improved situational awareness, battlefield awareness and incorporates an EW capability.

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LI 0532 - H-1 Series
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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: UH-1Y, AH-1W/Z			Modification Type: Operational Improvement					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) APR-39D(V)2 (UH-1Y) - Organic ^(*) (10)	- / -	- / -	4 / 2.048	10 / 5.120	- / -	10 / 5.120	9 / 4.608	4 / 2.048	27 / 13.824	21 / 10.752	85 / 43.520	160 / 81.920
1.2.1) Installation Kits N/R - Organic ^(*)	- / -	- / -	- / 1.453	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.453
1.2.2) Archived Mods - Organic ^(*)	200 / 15.451	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	200 / 15.451
2.1.1) BRITE Star BLK II Laser Spot Tracker (UH-1Y) - NonOrganic Installation 1 of 2	124 / 6.070	36 / 1.276	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 7.346
2.1.2) Target Sight System (TSS) Block Upgrade (AH-1Z) - Organic ^(*) (11)	- / -	- / -	- / -	2 / 0.929	- / -	2 / 0.929	44 / 20.438	33 / 15.328	45 / 20.902	35 / 16.257	30 / 13.935	189 / 87.789
2.1.3) OTO Helmet Mounted Sight and Display Reliability Kit (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	200 / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	800 / 1.760	1,000 / 3.260
2.1.4) APR-39D(V)2 (UH-1Y) - NonOrganic ⁽¹²⁾ Installation 2 of 2	- / -	- / -	4 / 3.470	10 / 8.675	- / -	10 / 8.675	9 / 7.808	4 / 3.470	27 / 23.423	21 / 18.218	85 / 73.738	160 / 138.802
2.1.5) Archived Mods - Organic ^(*)	89 / 41.863	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	89 / 41.863
2.2.1) Installation Equipment N/R - Organic ^(*) (13)	- / 6.249	- / -	- / 9.973	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.222
Subtotal: Procurement	- / 69.633	- / 1.276	- / 18.444	- / 14.724	- / -	- / 14.724	- / 32.854	- / 20.846	- / 58.149	- / 45.227	- / 132.953	- / 394.106
Support												
3.1) Engineering Change Orders	- / 1.352	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.352
3.2) Data (14)	- / 2.242	- / -	- / 0.050	- / 0.437	- / -	- / 0.437	- / 0.205	- / 0.378	- / 0.531	- / 0.657	- / 4.510	- / 9.010
3.5) ILS (15)	- / 4.797	- / 0.210	- / 0.500	- / 0.870	- / -	- / 0.870	- / 0.878	- / 0.887	- / 0.896	- / 0.905	- / 0.417	- / 10.360
3.6) Other Support (16)	- / 5.629	- / 0.210	- / 0.805	- / 0.949	- / -	- / 0.949	- / 0.957	- / 0.971	- / 0.976	- / 0.986	- / 5.406	- / 16.889
Subtotal: Support	- / 14.020	- / 0.420	- / 1.355	- / 2.256	- / -	- / 2.256	- / 2.040	- / 2.236	- / 2.403	- / 2.548	- / 10.333	- / 37.611
Installation												
Installation 1 of 2: BRITE Star BLK II Laser Spot Tracker (UH-1Y)	- / 0.590	- / 2.413	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.003
Installation 2 of 2: APR-39D(V)2 (UH-1Y)	- / -	- / -	- / 1.200	- / 3.000	- / 0.000	- / 3.000	- / 2.700	- / 1.200	- / 8.100	- / 6.300	- / 25.500	- / 48.000
Subtotal: Installation	- / 0.590	- / 2.413	- / 1.200	- / 3.000	- / -	- / 3.000	- / 2.700	- / 1.200	- / 8.100	- / 6.300	- / 25.500	- / 51.003
Total												
Total Cost (Procurement + Support + Installation)	84.243	4.109	20.999	19.980	0.000	19.980	37.594	24.282	68.652	54.075	168.786	482.720

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: BRITE Star BLK II Laser Spot Tracker (UH-1Y)																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin Corporation-BSLST															Manufacturer Location: Florida																
Administrative Leadtime (<i>in Months</i>): 10															Production Leadtime (<i>in Months</i>): 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jul 2018																													
Delivery Dates		Aug 2018																													
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: BRITE Star BLK II Laser Spot Tracker (UH-1Y)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)							
Prior Years		62 / 0.590		62 / 0.820		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		124 / 1.410					
FY 2018		- / -		36 / 1.593		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		36 / 1.593					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		62 / 0.590		98 / 2.413		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		160 / 3.003					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	62	-	-	-	98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160
Out	-	20	21	21	49	49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	160

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: APR-39D(V)2 (UH-1Y)																															
Manufacturer Information																															
Manufacturer Name: TBD-APR-39D(V)2 (UH-1Y)															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020								Oct 2022									
Delivery Dates						Jun 2019				Jun 2020				Jun 2021								Jun 2023									
Installation Information																															
Method of Implementation: Contractor Field Mod Team (CFMT):: Installation Name: APR-39D(V)2 (UH-1Y)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		4 / 1.200		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 1.200					
FY 2020		- / -		- / -		- / -		10 / 3.000		0 / 0.000		10 / 3.000		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 3.000					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		9 / 2.700		- / -		- / -		- / -		- / -		0 / 0.000		9 / 2.700					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.200		- / -		- / -		- / -		0 / 0.000		4 / 1.200					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		27 / 8.100		- / -		- / -		0 / 0.000		27 / 8.100					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 6.300		- / -		0 / 0.000		21 / 6.300					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		85 / 25.500		85 / 25.500					
Total		- / -		- / -		4 / 1.200		10 / 3.000		0 / 0.000		10 / 3.000		9 / 2.700		4 / 1.200		27 / 8.100		21 / 6.300		85 / 25.500		160 / 48.000							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	5	5	-	-	5	4	-	-	2	2	-	-	13	14	-	-	11	10	85	160
Out	-	-	-	-	-	-	-	-	2	2	-	-	5	5	-	-	5	4	-	-	2	2	-	-	13	14	-	-	11	95	160
Footnotes: ⁽¹⁰⁾ The UH-1Y is only equipped with the legacy APR-39D(V)2 system. Increase in FY 2020 with the modification of (10) UH-1Y's allows the Marine Corps the flexibility to deploy aircraft with a common digital processor type, that will enhance situational awareness, enhance effectiveness and suitability in complex, hostile environments in support of Marine Expeditionary Operations.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0532 / H-1 Series	Modification Number / Title: 2 / H-1 SENSORS AND WEAPONS IMPROVEMENTS (OSIP 016-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(11) The USMC H-1 Operating Forces Capabilities Planning Document identifies the need for an electro-optical system capable of automatically detecting laser designator energy for purposes of target handoff operations. The Target Sight System (TSS) Block Upgrade includes the TSS Laser Spot Tracker, Turret Electronic Unit, and High Definition upgrade to enable the AH-1Z to detect, acquire, and track laser designator energy for more expeditious target handoff and engagement. Procurement of equipment begins in FY 2020. (12) The UH-1Y is only equipped with the legacy APR-39D(V)2 system. Increase in FY 2020 with the modification of (10) UH-1Y's allows the Marine Corps the flexibility to deploy aircraft with a common digital processor type, that will enhance situational awareness, enhance effectiveness and suitability in complex, hostile environments in support of Marine Expeditionary Operations. (13) Increase in FY 2019 Installation Equipment N/R (material, engineering and test) required for Target Sight Sensor (TSS) Block Upgrade. Without the N/R TSS block upgrade will be forced to continue utilizing the current TSS which has deficiencies that impact AH-1Z situational awareness and reduces the capability in the employment of the Joint Air To Ground Missile (JAGM) scheduled to IOC in FY 2020. (14) Increases in FY 2020 provides publications for APR-39D(V)2 and TSS Block Upgrade. (15) Increases in FY 2020 provides logistics support for APR-39D(V)2 and TSS Block Upgrade. (16) Increases in FY 2020 provides technical support for APR-39D(V)2 and TSS Block Upgrade.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	61.621	58.714	19.441	40.549	0.000	40.549	78.323	94.023	91.201	82.194	267.475	793.541
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	61.621	58.714	19.441	40.549	0.000	40.549	78.323	94.023	91.201	82.194	267.475	793.541
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	61.621	58.714	19.441	40.549	0.000	40.549	78.323	94.023	91.201	82.194	267.475	793.541
<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: This Operational Safety and Improvement Program (OSIP) incorporates a number of modifications to H-1 air vehicle systems, specifically attacking the highest readiness degraders to reduce the total cost of ownership while improving ready-based aircraft and ready-for-tasking rates. Improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), and readiness degrader items will yield a more interoperable and survivable H-1 force to sustain warfighter capability in support of worldwide operations. Planned modifications cover airframes (structural and air vehicle systems), propulsion, survivability, reliability and maintainability, fuel systems, electrical power, drives, engines, rotors, flying qualities, flight controls, human factors, systems thermodynamics, and weight and balance. Particular focus is on continuously reducing total ownership costs by increasing component time on the aircraft. During full scale development testing of the H-1 Upgrades aircraft, data evaluation showed that incorporation of redesigned components applicable to the critical load paths will significantly increase the service life of the aircraft and components to meet the life limit of 10,000 flight hours. Safety programs include, cargo door latch, external lights, and mission grip mounts. Reliability and maintainability modifications items include, the aircraft electrical system, power distribution system, fuel cells, canopy frame, bushings, blade fold rack, gearboxes, standpipes, fuselage/cabin/seats, external lights, engine mount and tail boom bearings, main and tail rotor components, aircraft Nickel Cadmium battery, hydraulic distribution, weight reduction initiatives, swashplate, integrated mechanical diagnostic system, clearances, drive system, systems heating/cooling, corrosion/water intrusion control, rotor blade and gun turret covers, engine cowlings, and airframe structural robustness including access panels. Dynamic Component Reliability includes improvements/upgrades to: rotor brake system, Main Rotor Gear Box (MRGB) PC2 pump quill, desiccant breather, input quills, MRGB tiltball, and main rotor mast. Survivability modifications include, Improved Defensive Armament System (IDAS) for carrying stores (UH-1Y machine guns, rocket pods, fuel tanks, etc.), and armored flooring. Electrical power modifications include generators and inverters. Other structural modifications include: swash plate assembly, clamp ring assembly, composite elevator, tail boom assembly, main rotor blades, and canopies. Human factor improvements include Aircrew Restraint System (ARS). Propulsion improvements to tail boom wiring and drives. Thermal cooling improvements include Environmental Control System (ECS). DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Qualification testing for Fuel Cells planned to award 1st Quarter 2019.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series				Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: UH-1Y, AH-1W/Z			Modification Type: Safety/Reliability Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) Tail Boom Clamp and Retainer Mod (UH-1Y/AH-1Z) - NonOrganic Installation 1 of 6	75 / 0.853	4 / 0.060	2 / 0.031	16 / 0.252	- / -	16 / 0.252	15 / 0.244	- / -	- / -	- / -	- / -	112 / 1.440
1.1.2) Main Rotor Gear Box (MRGB) Pylon Strap Rivets (UH-1Y) - NonOrganic Installation 2 of 6	37 / 0.006	10 / 0.002	20 / 0.004	49 / 0.011	- / -	49 / 0.011	20 / 0.005	20 / 0.007	- / -	- / -	- / -	156 / 0.035
1.1.3) Tail Rotor Drive Shaft (TRDS) Clearance Improvements (UH-1Y/AH-1Z) - Organic(*)	- / -	50 / 0.475	40 / 0.380	80 / 0.760	- / -	80 / 0.760	105 / 0.998	74 / 0.703	- / -	- / -	- / -	349 / 3.316
1.1.4) Tailboom Stinger (UH-1Y/AH-1Z) - NonOrganic Installation 3 of 6	35 / 0.236	15 / 0.110	30 / 0.239	30 / 0.254	- / -	30 / 0.254	62 / 0.556	60 / 0.566	74 / 0.667	- / -	- / -	306 / 2.628
1.1.5) Cargo Door Latch (UH-1Y) - Organic Installation 4 of 6	- / -	- / -	10 / 0.380	40 / 1.611	- / -	40 / 1.611	30 / 1.238	- / -	- / -	- / -	- / -	80 / 3.229
1.1.6) Swashplate Improvements (UH-1Y/AH-1Z) - Organic(*)	- / -	- / -	39 / 0.390	52 / 0.520	- / -	52 / 0.520	52 / 0.520	52 / 0.520	38 / 0.380	- / -	- / -	233 / 2.330
1.1.7) Environmental Control System (ECS) Thermal (UH-1Y/ AH-1Z) - NonOrganic Installation 5 of 6	- / -	- / -	20 / 2.472	30 / 3.765	- / -	30 / 3.765	50 / 6.400	40 / 5.200	39 / 5.148	40 / 5.360	130 / 17.680	349 / 46.025
1.1.8) Structural Improvements (UH-1Y) - Organic(*)	- / -	- / -	4 / 1.600	- / -	- / -	- / -	33 / 13.283	27 / 10.908	24 / 9.732	45 / 18.270	27 / 10.932	160 / 64.725
1.1.9) Electrical Power Upgrades (UH-1Y/AH-1Z) - NonOrganic Installation 6 of 6	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 9.450	35 / 9.450	194 / 52.380	264 / 71.280
1.1.10) Main Rotor (MR) Mast (UH-1Y/AH-1Z) - Organic(*)	- / -	- / -	- / -	75 / 0.375	- / -	75 / 0.375	75 / 0.375	80 / 0.400	80 / 0.400	39 / 0.195	- / -	349 / 1.745
1.2.1) Installation Kits N/R - Organic(*)	- / 4.411	- / 12.396	- / 3.053	- / 0.488	- / -	- / 0.488	- / 1.487	- / 2.232	- / -	- / -	- / 3.776	- / 27.843
1.2.2) Archived Mods - Organic(*)	413 / 1.793	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	413 / 1.793
2.1.1) External Lights (AH-1Z) - Organic(*)	87 / 4.393	102 / 7.288	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	189 / 11.681
2.1.2) External Lights (UH-1Y) - Organic(*)	156 / 7.248	4 / 0.219	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 7.467
2.1.3) Mission Grip Mount (AH-1Z) - Organic(*)	123 / 0.314	22 / 0.065	22 / 0.068	22 / 0.074	- / -	22 / 0.074	- / -	- / -	- / -	- / -	- / -	189 / 0.521
2.1.4) T700-401C (AH-1Z Reman) - Organic(*)	23 / 30.289	13 / 17.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.720	36 / 54.388
2.1.5) Structural Improvements (UH-1Y) - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	33 / 6.061	27 / 5.010	24 / 4.499	45 / 8.521	31 / 5.853	160 / 29.944
2.1.6) Environmental Control System (ECS) Thermal (UH-1Y/ AH-1Z) - Organic(*)	- / -	- / -	10 / 4.000	30 / 12.075	- / -	30 / 12.075	50 / 20.250	44 / 17.908	39 / 15.951	40 / 16.440	136 / 56.052	349 / 142.676
2.1.7) Electrical Power Upgrades (UH-1Y/AH-1Z) - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 9.948	35 / 9.948	194 / 55.139	264 / 75.035
2.1.8) Main Rotor Gear Box (MRGB) PC2 Pump Quill (UH-1Y/ AH-1Z) - Organic(*)	- / -	190 / 1.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	190 / 1.250
2.1.9) Rotor Brake System (UH-1Y/AH-1Z) - Organic(*)	- / -	- / -	- / -	43 / 10.750	- / -	43 / 10.750	51 / 12.750	140 / 35.000	76 / 19.000	- / -	42 / 10.500	352 / 88.000

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series					Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH-1Y, AH-1W/Z			Modification Type: Safety/Reliability Improvements					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.10) Input Quills (UH-1Y/AH-1Z) - Organic ^(*)	- / -	10 / 0.100	- / -	71 / 0.710	- / -	71 / 0.710	60 / 0.600	80 / 0.800	77 / 0.770	- / -	50 / 0.500	348 / 3.480	
2.1.11) Desiccant Breather (UH-2Y/AH-1Z) - Organic ^(*)	- / -	150 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	206 / 0.412	356 / 0.712	
2.1.12) Main Rotor Gear Box (MRGB) Tiltball (UH-1Y/AH-1Z) - Organic ^(*)	- / -	- / -	- / -	60 / 0.600	- / -	60 / 0.600	77 / 0.770	95 / 0.950	114 / 1.140	- / -	- / -	346 / 3.460	
2.1.13) Inverters (UH-1Y) - Organic ^(*) ⁽¹⁷⁾	- / -	160 / 6.519	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 6.519	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 6.436	- / 10.542	- / 1.118	- / 0.661	- / -	- / 0.661	- / 1.024	- / 1.892	- / -	- / -	- / 4.273	- / 25.946	
Subtotal: Procurement	- / 55.979	- / 56.705	- / 13.735	- / 32.906	- / -	- / 32.906	- / 66.561	- / 82.096	- / 77.085	- / 68.184	- / 224.217	- / 677.468	
Support													
3.2) Data ⁽¹⁸⁾	- / 0.413	- / 0.310	- / 0.600	- / 0.912	- / -	- / 0.912	- / 1.972	- / 1.767	- / 0.520	- / 0.490	- / -	- / 6.984	
3.4) Support Equipment ⁽¹⁹⁾	- / 1.322	- / 0.094	- / 0.056	- / 0.057	- / -	- / 0.057	- / 0.063	- / 0.090	- / -	- / -	- / -	- / 1.682	
3.5) ILS ⁽²⁰⁾	- / 0.737	- / 0.550	- / 0.670	- / 0.684	- / -	- / 0.684	- / 1.300	- / 1.460	- / 1.465	- / 1.470	- / 0.716	- / 9.052	
3.6) Other Support ⁽²¹⁾	- / 2.142	- / 0.789	- / 1.668	- / 1.707	- / -	- / 1.707	- / 1.744	- / 3.100	- / 3.325	- / 3.350	- / 4.942	- / 22.767	
Subtotal: Support	- / 4.614	- / 1.743	- / 2.994	- / 3.360	- / -	- / 3.360	- / 5.079	- / 6.417	- / 5.310	- / 5.310	- / 5.658	- / 40.485	
Installation													
Installation 1 of 6: Tail Boom Clamp and Retainer Mod (UH-1Y/AH-1Z)	- / 0.508	- / 0.045	- / 0.022	- / 0.170	- / 0.000	- / 0.170	- / 0.160	- / -	- / -	- / -	- / 0.000	- / 0.905	
Installation 2 of 6: Main Rotor Gear Box (MRGB) Pylon Strap Rivets (UH-1Y)	- / 0.275	- / 0.112	- / 0.232	- / 0.586	- / 0.000	- / 0.586	- / 0.244	- / 0.301	- / -	- / -	- / 0.000	- / 1.750	
Installation 3 of 6: Tailboom Stinger (UH-1Y/AH-1Z)	- / 0.245	- / 0.109	- / 0.218	- / 0.227	- / 0.000	- / 0.227	- / 0.479	- / 0.489	- / 0.626	- / -	- / 0.000	- / 2.393	
Installation 4 of 6: Cargo Door Latch (UH-1Y)	- / -	- / 0.040	- / 0.215	- / 0.392	- / 0.000	- / 0.392	- / 0.663	- / 0.448	- / -	- / -	- / 0.000	- / 1.758	
Installation 5 of 6: Environmental Control System (ECS) Thermal (UH-1Y/AH-1Z)	- / -	- / -	- / 2.240	- / 3.300	- / 0.000	- / 3.300	- / 5.800	- / 4.720	- / 4.680	- / 5.200	- / 18.200	- / 44.140	
Installation 6 of 6: Electrical Power Upgrades (UH-1Y/ AH-1Z)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.500	- / 3.500	- / 19.400	- / 26.400	
Subtotal: Installation	- / 1.028	- / 0.266	- / 2.712	- / 4.283	- / -	- / 4.283	- / 6.683	- / 5.510	- / 8.806	- / 8.700	- / 37.600	- / 75.588	
Total													
Total Cost (Procurement + Support + Installation)	61.621	58.714	19.441	40.549	0.000	40.549	78.323	94.023	91.201	82.194	267.475	793.541	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 6: Tail Boom Clamp and Retainer Mod (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: Depot - Tail Boom Clamp and Retainer Mod															Manufacturer Location: North Carolina																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020																	
Delivery Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021																	
Installation Information																															
Method of Implementation: Depot Field Modification Team:: Installation Name: Tail Boom Clamp and Retainer Mod (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		75 / 0.508		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		75 / 0.508					
FY 2018		- / -		4 / 0.045		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.045					
FY 2019		- / -		- / -		2 / 0.022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.022					
FY 2020		- / -		- / -		- / -		16 / 0.170		0 / 0.000		16 / 0.170		- / -		- / -		- / -		- / -		- / -		0 / 0.000		16 / 0.170					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.160		- / -		- / -		- / -		- / -		0 / 0.000		15 / 0.160					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		75 / 0.508		4 / 0.045		2 / 0.022		16 / 0.170		0 / 0.000		16 / 0.170		15 / 0.160		- / -		- / -		- / -		- / -		0 / 0.000		112 / 0.905					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	75	-	1	1	2	-	1	1	-	-	6	5	5	-	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	75	-	1	1	2	-	1	1	-	-	6	5	5	-	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)													
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																		
Installation 2 of 6: Main Rotor Gear Box (MRGB) Pylon Strap Rivets (UH-1Y)																																	
Manufacturer Information																																	
Manufacturer Name: Depot - Main Rotor Gear Box (MRGB) Pylon Strap Rivets															Manufacturer Location: North Carolina																		
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 6																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024							
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020				Oct 2021															
Delivery Dates		Apr 2018				Apr 2019				Apr 2020				Apr 2021				Apr 2022															
Installation Information																																	
Method of Implementation: Depot Field Modification Team:: Installation Name: Main Rotor Gear Box (MRGB) Pylon Strap Rivets (UH																																	
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total									
		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)		Qty (<i>Each</i>) / Total Cost (\$ M)									
Prior Years		37 / 0.275		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		37 / 0.275							
FY 2018		- / -		10 / 0.112		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.112							
FY 2019		- / -		- / -		20 / 0.232		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		20 / 0.232							
FY 2020		- / -		- / -		- / -		49 / 0.586		0 / 0.000		49 / 0.586		- / -		- / -		- / -		- / -		- / -		0 / 0.000		49 / 0.586							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.244		- / -		- / -		- / -		- / -		0 / 0.000		20 / 0.244							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.301		- / -		- / -		- / -		0 / 0.000		20 / 0.301							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		37 / 0.275		10 / 0.112		20 / 0.232		49 / 0.586		0 / 0.000		49 / 0.586		20 / 0.244		20 / 0.301		- / -		- / -		- / -		0 / 0.000		156 / 1.750							
Installation Schedule																																	
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	37	-	-	5	5	-	-	10	10	-	-	24	25	-	-	10	10	-	-	10	10	-	-	-	-	-	-	-	-	-	156		
Out	32	5	-	-	5	5	-	-	10	10	-	-	24	25	-	-	10	10	10	-	-	10	10	-	-	-	-	-	-	-	-	-	156

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: Tailboom Stinger (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: Depot- Tailboom Stinger															Manufacturer Location: North Carolina																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022									
Delivery Dates		Jun 2018				Jun 2019				Jun 2020				Jun 2021				Jun 2022				Jun 2023									
Installation Information																															
Method of Implementation: Depot Field Mod Team:: Installation Name: Tailboom Stinger (UH-1Y/AH-1Z)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		35 / 0.245		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		35 / 0.245							
FY 2018		- / -		15 / 0.109		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		15 / 0.109							
FY 2019		- / -		- / -		30 / 0.218		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		30 / 0.218							
FY 2020		- / -		- / -		- / -		30 / 0.227		0 / 0.000		30 / 0.227		- / -		- / -		- / -		- / -		0 / 0.000		30 / 0.227							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		62 / 0.479		- / -		- / -		- / -		0 / 0.000		62 / 0.479							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.489		- / -		- / -		0 / 0.000		60 / 0.489							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		74 / 0.626		- / -		0 / 0.000		74 / 0.626							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		35 / 0.245		15 / 0.109		30 / 0.218		30 / 0.227		0 / 0.000		30 / 0.227		62 / 0.479		60 / 0.489		74 / 0.626		- / -		0 / 0.000		306 / 2.393							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	35	-	-	7	8	-	-	15	15	-	-	15	15	-	-	31	31	-	-	30	30	-	-	37	37	-	-	-	-	-	306
Out	35	-	-	7	8	-	-	15	15	-	-	15	15	-	-	31	31	-	-	30	30	-	-	37	37	-	-	-	-	-	306

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 6: Cargo Door Latch (UH-1Y)																															
Manufacturer Information																															
Manufacturer Name: Depot-Cargo Door Latch															Manufacturer Location: North Carolina																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020				Oct 2021													
Delivery Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022													
Installation Information																															
Method of Implementation: Depot Field Modification Team:: Installation Name: Cargo Door Latch (UH-1Y)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2018		- / -	2 / 0.040		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.040						
FY 2019		- / -	- / -		10 / 0.215		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.215						
FY 2020		- / -	- / -		- / -		18 / 0.392		0 / 0.000		18 / 0.392		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.392						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		30 / 0.663		- / -		- / -		- / -		- / -		0 / 0.000		30 / 0.663						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.448		- / -		- / -		- / -		0 / 0.000		20 / 0.448						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	2 / 0.040		10 / 0.215		18 / 0.392		0 / 0.000		18 / 0.392		30 / 0.663		20 / 0.448		- / -		- / -		0 / 0.000		80 / 1.758								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	4	3	3	-	6	6	6	-	10	10	10	-	7	7	6	-	-	-	-	-	-	-	-	-	80
Out	-	-	-	1	1	-	-	4	3	3	-	6	6	6	-	10	10	10	-	7	7	6	-	-	-	-	-	-	-	-	80

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy												Date: March 2019																			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)											
ID Code (A=Service Ready, B=Not Service Ready) :														MDAP/MAIS Code:																	
Installation 5 of 6: Environmental Control System (ECS) Thermal (UH-1Y/AH-1Z)																															
Manufacturer Information																															
Manufacturer Name: Depot -Environmental Control System (ECS) Thermal														Manufacturer Location: North Carolina																	
Administrative Leadtime <i>(in Months)</i> : 1														Production Leadtime <i>(in Months)</i> : 5																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023					
Delivery Dates						Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Installation Information																															
Method of Implementation: Depot Field Modification Team:: Installation Name: Environmental Control System (ECS) Thermal (UH-1Y)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		20 / 2.240		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		20 / 2.240					
FY 2020		- / -		- / -		- / -		30 / 3.300		0 / 0.000		30 / 3.300		- / -		- / -		- / -		- / -		- / -		0 / 0.000		30 / 3.300					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		50 / 5.800		- / -		- / -		- / -		- / -		0 / 0.000		50 / 5.800					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 4.720		- / -		- / -		- / -		0 / 0.000		40 / 4.720					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		39 / 4.680		- / -		- / -		0 / 0.000		39 / 4.680					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		40 / 5.200		- / -		0 / 0.000		40 / 5.200					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		130 / 18.200		130 / 18.200					
Total		- / -		- / -		20 / 2.240		30 / 3.300		0 / 0.000		30 / 3.300		50 / 5.800		40 / 4.720		39 / 4.680		40 / 5.200		130 / 18.200		349 / 44.140							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	7	-	10	10	10	-	16	17	17	-	13	13	14	-	13	13	13	-	12	14	14	130	349
Out	-	-	-	-	-	-	-	6	7	7	-	10	10	10	-	16	17	17	-	13	13	14	-	13	13	13	-	12	14	144	349

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Exhibit P-3a, Individual Modification: PB 2020 Navy												Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0532 / H-1 Series										Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)													
ID Code (A=Service Ready, B=Not Service Ready) :														MDAP/MAIS Code:																			
Installation 6 of 6: Electrical Power Upgrades (UH-1Y/AH-1Z)																																	
Manufacturer Information																																	
Manufacturer Name: TBD-Electrical Power Upgrades (UH-1Y/AH-1Z)														Manufacturer Location: TBD																			
Administrative Leadtime (<i>in Months</i>): 3														Production Leadtime (<i>in Months</i>): 5																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024							
Contract Dates																						Dec 2022				Dec 2023							
Delivery Dates																										Feb 2023				Feb 2024			
Installation Information																																	
Method of Implementation: Contractor Field Mod Team:: Installation Name: Electrical Power Upgrades (UH-1Y/AH-1Z)																																	
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 3.500		- / -		0 / 0.000		35 / 3.500							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 3.500		0 / 0.000		35 / 3.500							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		194 / 19.400		194 / 19.400							
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		35 / 3.500		35 / 3.500		194 / 19.400		264 / 26.400							
Installation Schedule																																	
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	12	-	11	12	12	194	264		
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	12	12	-	11	12	206	264		
Footnotes: ⁽¹⁷⁾ Readiness increase in FY 2018 for (160) Inverters will impact readiness of the UH-1Y Fleet significantly. Existing UH-1Y inverters are currently experiencing high rates of failure (low reliability) which is having a negative effect on the readiness of the UH-1Y Fleet. Reports show these inverters have a Mean Time Between Failure (MTBF) average of 263 hrs. The new DSP-type inverter calculated MTBF is 3,468 hrs. Replacing old inverters with new DSP-type inverters increases time between replacement by ~3,205 hours per unit. Contract award slipped from FY17 to FY18.																																	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0532 / H-1 Series	Modification Number / Title: 3 / H-1 AIR VEHICLE IMPROVEMENTS (OSIP 013-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(18) Increase in FY 2020 provides publications for ECS thermal and rotor brake system. (19) Readiness increase in FY 2020 is for Main Rotor Yoke Tooling. (20) Increase in FY 2020 provides logistic support for swashplate improvements, ECS thermal and structural improvements. (21) Increase in FY 2020 provides technical support for swashplate improvements, ECS thermal and structural improvements.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series						Modification Number / Title: 4 / INACTIVE OSIPS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	285.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	285.029
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	285.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	285.029
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	285.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	285.029
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0532 / H-1 Series						Modification Number / Title: 4 / INACTIVE OSIPS			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 285.029	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 285.029	
<i>Subtotal: Procurement</i>	- / 285.029	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 285.029	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	285.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	285.029	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0537 / EP-3 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,337.450	14.451	9.013	8.655	5.488	14.143	14.100	5.717	5.659	5.773	-	1,406.306
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,337.450	14.451	9.013	8.655	5.488	14.143	14.100	5.717	5.659	5.773	-	1,406.306
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,337.450	14.451	9.013	8.655	5.488	14.143	14.100	5.717	5.659	5.773	-	1,406.306
<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: This line item funds modifications to the EP-3E aircraft. The EP-3E is a land based, long range aircraft with electronic intercept devices for detection and tracking of enemy Radio Detection and Ranging and communications. In Operational, Safety and Improvement Program (OSIP) 11-01, the Joint Airborne Signal Intelligence Architecture Modification Common Configuration (JCC) obsolescence Engineering Change Orders (ECO) improves operational capability and aircrew productivity by updating the Electronic Support Measures systems, applying state-of-the-art signal exploitation/processing/display techniques, off-board classified communication, and expanding special signal processing capability while meeting cybersecurity and emerging requirement upgrades. OSIP 14-05 responds to the current, immediate demand for information operations capabilities on the EP-3E in Overseas Contingency Operations (OCO). Research and Development is funded with National Security Agency (NSA) Military Intelligence Program (MIP) funds. This OSIP provides the procurement tail for Research, Development, Test and Evaluation (RDT&E) funds from the Navy's Advanced Signal Recognition line (Program Element 0305206N). The NSA RDT&E line for the Navy Airborne Sensor System Improvements funds sensor improvements with application for the EP-3E. MIP RDT&E funds are responsible for the development and acquisition of EP-3E sensors, data links, data relays and ground stations to achieve and maintain interoperability with Defense-wide airborne reconnaissance assets. Active Primary Aircraft Authorization inventory is 12. Funds budgeted in FY2018-FY2024 are to continue EP-3E Joint Airborne Signal Intelligence Architecture Modification Common Configuration Program. The EP-3E has an average age of 46 years.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0537 / EP-3 Series				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / JSAF Modification (JMOD) - OSIP 11-01 (Operational Improvement / Modernization)				- / 748.219	- / 7.231	- / 3.633	- / 8.655	- / 0.000	- / 8.655
P-3a	2 / EP-3E Info Operations - OSIP 14-05 (Operational Improvement / Modernization)				- / 209.320	- / 7.220	- / 5.380	- / 0.000	- / 5.488	- / 5.488
P-3a	3 / Inactive OSIPS (Operational Improvement / Modernization)				- / 379.911	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,337.450	- / 14.451	- / 9.013	- / 8.655	- / 5.488	- / 14.143
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / JSAF Modification (JMOD) - OSIP 11-01 (Operational Improvement / Modernization)				- / 14.100	- / 5.717	- / 5.659	- / 5.773	- / 0.000	- / 798.987
P-3a	2 / EP-3E Info Operations - OSIP 14-05 (Operational Improvement / Modernization)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 227.408
P-3a	3 / Inactive OSIPS (Operational Improvement / Modernization)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 379.911
P-40	Total Gross/Weapon System Cost				- / 14.100	- / 5.717	- / 5.659	- / 5.773	- / -	- / 1,406.306
*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 20 funding improves cyber protection posture due to extension of EP-3 Platform.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 1 / JSAF Modification (JMOD) - OSIP 11-01		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	748.219	7.231	3.633	8.655	0.000	8.655	14.100	5.717	5.659	5.773	0.000	798.987
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	748.219	7.231	3.633	8.655	0.000	8.655	14.100	5.717	5.659	5.773	0.000	798.987
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	748.219	7.231	3.633	8.655	0.000	8.655	14.100	5.717	5.659	5.773	0.000	798.987
<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 EP-3E JCC Program is an upgrade to the capabilities of the Sensor System Improvement Program (SSIP) configuration of the EP-3E. This Operational, Safety and Improvement Program (OSIP) responds to Operational Requirements Document (ORD) #571-78-01 and the CAPSTONE ORD #CAF-002-88. JCC is designed as an evolutionary acquisition program consisting of spiral upgrades. JCC Spirals include an updated EP-3E infrastructure, improved auto-Electronic Support Measures (ESM) with the Story Finder system, incorporated Joint Signal Processor, incorporated SSIP corrections, incorporated low band capability which improves special collection capability, Information Operations and incorporated Quick Reaction Capabilities (QRC). Data Fusion capability is currently deferred. This OSIP also allows the EP-3E the flexibility to react in real time against current and new emerging threats with the most sophisticated equipment available. This flexibility allows upgrades to current aircraft and training systems, modernization of computer / software based applications and will maintain Information Assurance requirements as upgrades are performed to support critical missions deemed vital to our national security. In OSIP 11-01, Spiral 3 procurement began in FY11 with Low Band Communication System Upgrades, IO capability, Environmental Control System modification, QRC and the replacement of aging and obsolescence aircraft antenna arrays. QRC funds address mission avionics system obsolescence and emerging requirements. This OSIP includes JCC Obsolescence funding to replace subsystem obsolescence and emerging requirement upgrades to ensure EP-3E viability until aircraft recapitalization. JCC Obsolescence and ILS are aligned to meet Electronic Intelligence, Communications Intelligence, Communications, Mission Management and Special Signals obsolescence requirements in order to support EP mod transition to Multi-INT Family of Systems (FoS). DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: JCC Spiral 3 LRIP decision was approved on 25 February 2011 NOTES: 1) Other Support includes Navy Test 2) Install Schedule based on Projected Aircraft Availability 3) Obsolescence quantities include various mission equipment quantities. Quantities cannot be defined due to unknown obsolescence issues. 4) FY-18 through FY-24 NRE, ECO, Data, Training Equipment and Support Equipment supports EP-3E Obsolescence issues and emerging requirement upgrades. 5) FY 20 increased funding improves cyber protection posture due to extension of EP-3 Platform.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 1 / JSAF Modification (JMOD) - OSIP 11-01			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: EP-3E					Modification Type: Operational Improvement / Modernization					Related RDT&E PEs: 0305206N			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2: Kits													
A Kits													
Recurring													
1.1.1) Prior Year Archive - Organic	12 / 47.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 47.751	
Subtotal: Recurring	- / 47.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 47.751	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 24.465	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.465	
Subtotal: Non-Recurring	- / 24.465	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 24.465	
B Kits													
Recurring													
2.1.1) Prior Year Archive - Organic	9 / 178.808	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 178.808	
Subtotal: Recurring	- / 178.808	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 178.808	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic	- / 45.191	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 45.191	
Subtotal: Non-Recurring	- / 45.191	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 45.191	
Subtotal: Kits	21 / 296.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 296.215	
Modification Item 2 of 2: Support													
A Kits													
Recurring													
3.1.1) JCC Obsolescence - NonOrganic	- / 198.069	- / 3.344	- / 0.405	- / 2.540	- / -	- / 2.540	- / 9.500	- / 5.217	- / 5.159	- / 5.373	- / -	- / 229.607	
Subtotal: Recurring	- / 198.069	- / 3.344	- / 0.405	- / 2.540	- / -	- / 2.540	- / 9.500	- / 5.217	- / 5.159	- / 5.373	- / 0.000	- / 229.607	
Subtotal: Support	- / 198.069	- / 3.344	- / 0.405	- / 2.540	- / -	- / 2.540	- / 9.500	- / 5.217	- / 5.159	- / 5.373	- / -	- / 229.607	
Subtotal: Procurement, All Modification Items	- / 494.284	- / 3.344	- / 0.405	- / 2.540	- / -	- / 2.540	- / 9.500	- / 5.217	- / 5.159	- / 5.373	- / 0.000	- / 525.822	
Support (All Modification Items)													
4.2) QRC	- / 3.593	- / 0.880	- / 0.880	- / 0.880	- / -	- / 0.880	- / 0.800	- / -	- / -	- / -	- / -	- / 7.033	
4.3) Data	- / 15.549	- / 0.100	- / 0.100	- / 0.350	- / -	- / 0.350	- / 0.050	- / -	- / -	- / -	- / -	- / 16.149	
4.4) Training Equipment	- / 17.337	- / 0.639	- / 0.381	- / 0.581	- / -	- / 0.581	- / 0.632	- / -	- / -	- / -	- / -	- / 19.570	
4.5) Support Equipment	- / 18.220	- / 0.200	- / 0.100	- / 0.200	- / -	- / 0.200	- / 0.100	- / -	- / -	- / -	- / -	- / 18.820	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 1 / JSAF Modification (JMOD) - OSIP 11-01			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EP-3E				Modification Type: Operational Improvement / Modernization				Related RDT&E PEs: 0305206N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
4.6) ILS	- / 31.624	- / 0.810	- / 0.406	- / 1.180	- / -	- / 1.180	- / 0.778	- / -	- / -	- / -	- / -	- / 34.798	
4.7) Other Support	- / 111.113	- / 0.458	- / 0.512	- / 1.375	- / -	- / 1.375	- / 0.406	- / -	- / -	- / -	- / -	- / 113.864	
<i>Subtotal: Support</i>	<i>- / 197.436</i>	<i>- / 3.087</i>	<i>- / 2.379</i>	<i>- / 4.566</i>	<i>- / -</i>	<i>- / 4.566</i>	<i>- / 2.766</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 210.234</i>	
Installation													
<i>Modification Item 2 of 2: Support</i>	<i>- / 56.499</i>	<i>- / 0.800</i>	<i>- / 0.849</i>	<i>- / 1.549</i>	<i>- / 0.000</i>	<i>- / 1.549</i>	<i>- / 1.834</i>	<i>- / 0.500</i>	<i>- / 0.500</i>	<i>- / 0.400</i>	<i>- / 0.000</i>	<i>- / 62.931</i>	
<i>Subtotal: Installation</i>	<i>- / 56.499</i>	<i>- / 0.800</i>	<i>- / 0.849</i>	<i>- / 1.549</i>	<i>- / -</i>	<i>- / 1.549</i>	<i>- / 1.834</i>	<i>- / 0.500</i>	<i>- / 0.500</i>	<i>- / 0.400</i>	<i>- / 0.000</i>	<i>- / 62.931</i>	
Total													
Total Cost (Procurement + Support + Installation)	748.219	7.231	3.633	8.655	0.000	8.655	14.100	5.717	5.659	5.773	0.000	798.987	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0537 / EP-3 Series	Modification Number / Title: 1 / JSAF Modification (JMOD) - OSIP 11-01
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 2: Kits		

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Exhibit P-3a, Individual Modification: PB 2020 Navy												Date: March 2019																			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0537 / EP-3 Series										Modification Number / Title: 1 / JSAF Modification (JMOD) - OSIP 11-01											
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:															
Modification Item 2 of 2: Support																															
Manufacturer Information																															
Manufacturer Name: TBD - Obsolescence ECP's ⁽¹⁾																Manufacturer Location: TBD															
Administrative Leadtime <i>(in Months)</i> : 2																Production Leadtime <i>(in Months)</i> : 2															
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates		Feb 2018				Feb 2019				Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024					
Installation Information																															
Method of Implementation: Navy Field Mod Team:: Installation Name: JCC Obsolescence																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 56.499		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 56.499					
FY 2018		- / -		0 / 0.800		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		- / 0.800					
FY 2019		- / -		- / -		0 / 0.849		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		- / 0.849					
FY 2020		- / -		- / -		- / -		0 / 1.549		0 / 0.000		0 / 1.549		- / -		- / -		- / -		- / -		- / -		0 / 0.000		- / 1.549					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		0 / 1.834		- / -		- / -		- / -		- / -		0 / 0.000		- / 1.834					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.500		- / -		- / -		- / -		0 / 0.000		- / 0.500					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.500		- / -		- / -		0 / 0.000		- / 0.500					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.400		- / -		0 / 0.000		- / 0.400					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		1 / 56.499		0 / 0.800		0 / 0.849		0 / 1.549		0 / 0.000		0 / 1.549		0 / 1.834		0 / 0.500		0 / 0.500		0 / 0.400		0 / 0.000		1 / 62.931							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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
Footnotes: ⁽¹⁾ OBS quantities include various mission equipment quantities.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	209.320	7.220	5.380	0.000	5.488	5.488	0.000	0.000	0.000	0.000	0.000	227.408
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	209.320	7.220	5.380	0.000	5.488	5.488	0.000	0.000	0.000	0.000	0.000	227.408
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	209.320	7.220	5.380	0.000	5.488	5.488	0.000	0.000	0.000	0.000	0.000	227.408
<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: This OSIP responds to the current, immediate demand for information operations capabilities on the EP-3E in the Overseas Contingency Operations (OCO) and has been funded via the Emergency Supplemental Appropriation for Defense. This EP-3E Information Operations OSIP will procure the necessary modifications for EP-3E aircraft to selectively conduct offensive intelligence operations. This requirement was originally identified by Commander U.S. Fifth Fleet (US Navy) N3//11715332OCT02)for Operation Enduring Freedom. The requirement was again identified by Commander Naval Forces - Iraq (021101ZNOV04) and endorsed by United States Central Command (CCJ3-P//091619ZNOV4), United States Naval Forces, Central Command(CENTCOM)(111332ZNOV04) and Commander, U.S. Fleet Forces Command(122012ZNOV04). FY2018 OCO request for Advanced Data Collection Equipment (ADCE). Effort procures and rapidly integrates ADCE required to conduct COCOM directed missions in support of Overseas Contingency Operations (OCO). FY2018 funds will enhance previous OCO funded installations on EP-3E aircraft. Specific operational details can be provided in a classified forum. FY2019 OCO request for \$5.380M for Increased Capability Special Collection Equipment (ICSCE). Effort procures and rapidly integrates ICSCE required to conduct COCOM directed missions in support of OCO. FY2019 OCO funds will install new collection capabilities required by the COCOM on EP-3E aircraft. Specific operational details can be provided in a classified forum. FY2020 OCO request for \$5.488M for Collection Recording and Distribution (CRAD). Effort procures and rapidly integrates CRAD to conduct COCOM directed theater specific missions in support of OCO. FY2020 funds are requested to install new collection capabilities required by the COCOM on EP-3E aircraft and ensure timely distribution of collected data to the interested entities. NOTES: 1) 2 Val/Ver Kits are included in ACME B-Kits 2) 2 Val/Ver Kits are included in ADCE B-Kits 3) FY19 ADCE Installs funded with FY18 OCO.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EP-3E			Modification Type: Operational Improvement / Modernization					Related RDT&E PEs: 0305206N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: EP-3E Info Operations - OSIP 14-05													
A Kits													
Recurring													
1.1.1) Advanced Signal Collection Equipment (ASCE) - NonOrganic	12 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.600	
1.1.2) Advanced Data Collection Equipment (ADCE) - NonOrganic	- / -	12 / 0.780	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.780	
1.1.3) Increased Capability Special Collection Equipment (ICSCE) - NonOrganic	- / -	- / -	12 / 0.840	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.840	
1.1.4) Collection Recording and Distribution (CRAD) - NonOrganic	- / -	- / -	- / -	- / 0.000	10 / 0.450	10 / 0.450	- / -	- / -	- / -	- / -	- / -	10 / 0.450	
1.1.5) ARCHIVED ECPs - Organic	46 / 119.844	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 119.844	
Subtotal: Recurring	- / 120.444	- / 0.780	- / 0.840	- / 0.000	- / 0.450	- / 0.450	- / -	- / -	- / -	- / -	- / 0.000	- / 122.514	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 10.943	- / 0.950	- / 1.025	- / 0.000	- / 1.702	- / 1.702	- / -	- / -	- / -	- / -	- / -	- / 14.620	
Subtotal: Non-Recurring	- / 10.943	- / 0.950	- / 1.025	- / 0.000	- / 1.702	- / 1.702	- / -	- / -	- / -	- / -	- / 0.000	- / 14.620	
B Kits													
Recurring													
2.1.1) Advanced Signal Collection Equipment (ASCE) - Organic	14 / 4.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 4.900	
2.1.2) Advanced Data Collection Equipment (ADCE) - Organic	- / -	14 / 3.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 3.850	
2.1.3) Increased Capability Special Collection Equipment (ICSCE) - Organic	- / -	- / -	14 / 1.470	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.470	
2.1.4) Collecting Recording and Distribution (CRAD) - Organic	- / -	- / -	- / -	- / 0.000	10 / 1.260	10 / 1.260	- / -	- / -	- / -	- / -	- / -	10 / 1.260	
2.1.5) Archive B-Kits Recurring - Organic	14 / 44.077	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 44.077	
Subtotal: Recurring	- / 48.977	- / 3.850	- / 1.470	- / 0.000	- / 1.260	- / 1.260	- / -	- / -	- / -	- / -	- / 0.000	- / 55.557	
Non-Recurring													
2.2.1) Install Equipment N/R - Organic	- / 3.050	- / -	- / 0.565	- / 0.000	- / 0.851	- / 0.851	- / -	- / -	- / -	- / -	- / -	- / 4.466	
Subtotal: Non-Recurring	- / 3.050	- / -	- / 0.565	- / 0.000	- / 0.851	- / 0.851	- / -	- / -	- / -	- / -	- / 0.000	- / 4.466	
Subtotal: EP-3E Info Operations - OSIP 14-05	86 / 183.414	26 / 5.580	26 / 3.900	- / 0.000	20 / 4.263	20 / 4.263	- / -	- / -	- / -	- / -	- / -	158 / 197.157	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0537 / EP-3 Series					Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EP-3E				Modification Type: Operational Improvement / Modernization				Related RDT&E PEs: 0305206N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ 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: Procurement, All Modification Items</i>	- / 183.414	- / 5.580	- / 3.900	- / 0.000	- / 4.263	- / 4.263	- / -	- / -	- / -	- / -	- / 0.000	- / 197.157	
Support (All Modification Items)													
3.2) Surge ECO	- / 6.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.000	
3.3) Data	- / 0.081	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.081	
3.4) Training Equipment	- / 1.886	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.886	
3.5) Support Equipment	- / 1.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.100	
3.6) ILS	- / 1.617	- / 0.300	- / 0.175	- / 0.000	- / 0.125	- / 0.125	- / -	- / -	- / -	- / -	- / -	- / 2.217	
3.7) Other Support	- / 14.022	- / 0.200	- / 0.645	- / 0.000	- / 0.450	- / 0.450	- / -	- / -	- / -	- / -	- / -	- / 15.317	
<i>Subtotal: Support</i>	- / 24.706	- / 0.500	- / 0.820	- / 0.000	- / 0.575	- / 0.575	- / -	- / -	- / -	- / -	- / 0.000	- / 26.601	
Installation													
Modification Item 1 of 1: EP-3E Info Operations - OSIP 14-05	- / 1.200	- / 1.140	- / 0.660	- / 0.000	- / 0.650	- / 0.650	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.650	
<i>Subtotal: Installation</i>	- / 1.200	- / 1.140	- / 0.660	- / 0.000	- / 0.650	- / 0.650	- / -	- / -	- / -	- / -	- / 0.000	- / 3.650	
Total													
Total Cost (Procurement + Support + Installation)	209.320	7.220	5.380	0.000	5.488	5.488	0.000	0.000	0.000	0.000	0.000	227.408	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0537 / EP-3 Series				Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05				
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:				
Modification Item 1 of 1: EP-3E Info Operations - OSIP 14-05												
Manufacturer Information												
Manufacturer Name: TBD - ICSCE						Manufacturer Location: TBD						
Administrative Leadtime (in Months): 3						Production Leadtime (in Months): 2						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates		Jan 2019										
Delivery Dates		Mar 2019										
Manufacturer Name: TBD						Manufacturer Location: TBD						
Administrative Leadtime (in Months): 3						Production Leadtime (in Months): 2						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Jan 2020									
Delivery Dates			Mar 2020									
Manufacturer Name: TBD - ASCE						Manufacturer Location: TBD						
Administrative Leadtime (in Months): 3						Production Leadtime (in Months): 2						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates												
Delivery Dates												
Manufacturer Name: TBD - ADCE						Manufacturer Location: TBD						
Administrative Leadtime (in Months): 3						Production Leadtime (in Months): 2						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates	Jan 2018											
Delivery Dates	Mar 2018											
Installation Information												
Method of Implementation: [none specified]:: Installation Name: Advanced Signal Collection Equipment (ASCE)												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	9 / 1.200	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	12 / 1.200
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2020 Navy			Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1		P-1 Line Item Number / Title: 0537 / EP-3 Series			Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05
ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:		

Modification Item 1 of 1: EP-3E Info Operations - OSIP 14-05

Installation Information

Method of Implementation: [none specified]:: Installation Name: Advanced Signal Collection Equipment (ASCE)

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	9 / 1.200	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	12 / 1.200

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12		
Out	6	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12		

Method of Implementation: [none specified]:: Installation Name: Advanced Data Collection Equipment (ADCE)

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	9 / 1.140	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	12 / 1.140
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	9 / 1.140	3 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	12 / 1.140

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Exhibit P-3a, Individual Modification: PB 2020 Navy																								Date: March 2019							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0537 / EP-3 Series										Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05											
ID Code (A=Service Ready, B=Not Service Ready) :																		MDAP/MAIS Code:													
Modification Item 1 of 1: EP-3E Info Operations - OSIP 14-05																															
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: Advanced Data Collection Equipment (ADCE)																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Method of Implementation: [none specified]:: Installation Name: Increased Capability Special Collection Equipment (ICSCE)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		12 / 0.660		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.660					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		12 / 0.660		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.660					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	-	-	-	-	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Method of Implementation: [none specified]:: Installation Name: Collection Recording and Distribution (CRAD)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0537 / EP-3 Series										Modification Number / Title: 2 / EP-3E Info Operations - OSIP 14-05													
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																		
Modification Item 1 of 1: EP-3E Info Operations - OSIP 14-05																																	
Installation Information																																	
Method of Implementation: [none specified]:: Installation Name: Collection Recording and Distribution (CRAD)																																	
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
FY 2020		- / -	- / -	- / -	0 / 0.000	10 / 0.650	10 / 0.650	- / -	- / -	- / -	- / -	0 / 0.000	10 / 0.650																				
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																				
Total		- / -	- / -	- / -	0 / 0.000	10 / 0.650	10 / 0.650	- / -	- / -	- / -	- / -	0 / 0.000	10 / 0.650																				
Installation Schedule																																	
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10		
Out	-	-	-	-	-	-	-	-	-	-	-	3	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10		
Method of Implementation (Organic): ARCHIVED ECPs - Not Installed																														Installation Quantity: 46			
Method of Implementation (Organic): Advanced Signal Collection Equipment (ASCE) - Not Installed																														Installation Quantity: 14			
Method of Implementation (Organic): Advanced Data Collection Equipment (ADCE) - Not Installed																														Installation Quantity: 14			
Method of Implementation (Organic): Increased Capability Special Collection Equipment (ICSCE) - Not Installed																														Installation Quantity: 14			
Method of Implementation (Organic): Collecting Recording and Distribution (CRAD) - Not Installed																														Installation Quantity: 10			
Method of Implementation (Organic): Archive B-Kits Recurring - Not Installed																														Installation Quantity: 14			

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0537 / EP-3 Series						Modification Number / Title: 3 / Inactive OSIPS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	379.911	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	379.911
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	379.911	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	379.911
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	379.911	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	379.911
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0537 / EP-3 Series						Modification Number / Title: 3 / Inactive OSIPS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: EP-3E				Modification Type: Operational Improvement / Modernization				Related RDT&E PEs: 0305206N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.2.1) Inactive OSIPS - Organic ^(*)	- / 379.911	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 379.911	
<i>Subtotal: Procurement</i>	- / 379.911	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 379.911	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	379.911	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	379.911	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0538 / P-3 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	4,909.460	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	4,910.963
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	4,909.460	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	4,910.963
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	4,909.460	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	4,910.963
<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: This line item funds modifications to P-3 aircraft. The P-3 Orion is a four turbo-prop engine, long-range maritime surveillance aircraft which performs Under Sea Warfare, Surface Warfare and Intelligence, Surveillance and Reconnaissance in support of battle group and littoral operations in direct support of Sea Shield and Forcenet pillars of Seapower 21. A key investment area is P-3 Mod Programs. Funding for these programs support a multitude of obsolescence, structural, sustainment, training/logistics and warfighting capability upgrades that are key in keeping the P-3 platform relevant through Multi-mission Maritime Aircraft (MMA) Initial Operational Capability. P-3 aircraft mods funded under the Aircraft Procurement, Navy line have heavily supported recent and current Operation Enduring Freedom, Operation Iraqi Freedom and Overseas Contingency Operations (OCO). Without key technology upgrades and aggressive obsolescence management, P-3 aircraft will be unable to meet Fleet Response Plan requirements, leaving key Seapower 21 capabilities in support of the Combatant Commanders at risk. This P-3 Sustainment Bridge provides a roadmap ensuring sufficient P-3 assets for Fleet and Combatant Commanders to fulfill operational and training/readiness requirements.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0538 / P-3 Series				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / P-3 MISSION SYSTEMS(OSIP 006-08) (Operational Improvement)				- / 51.191	- / 0.700	- / 0.803	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / Inactive OSIPs (TBD)				- / 4,858.269	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 4,909.460	- / 0.700	- / 0.803	- / 0.000	- / 0.000	- / 0.000
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / P-3 MISSION SYSTEMS(OSIP 006-08) (Operational Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 52.694
P-3a	2 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 4,858.269
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / -	- / 4,910.963
*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 budget supports the remaining P-3 variants through 2019 in order to complete the P-8 transition, and has been optimized for 55 AIP+, 12 EP-3, and 18 Block Modification Upgrade Program (BMUP) configured aircraft.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0538 / P-3 Series					Modification Number / Title: 1 / P-3 MISSION SYSTEMS(OSIP 006-08)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	51.191	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.694
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	51.191	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.694
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	51.191	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.694
<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 Navy's Maritime Patrol and Reconnaissance Force (primarily P-3C Orion aircraft) provides three deliverables to Navy and Joint commanders worldwide: Undersea warfare; Intelligence Surveillance, and Reconnaissance; and Maritime Surveillance Targeting. The P-3C Mission Systems Sustainment program will ensure that the P-3C aircraft continues to meet the Navy's requirement to perform Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASUW), Over-the-Horizon Targeting (OTH-T), and Command, Control, Communications, Computers, and Intelligence (C4I) until Full Operational Capability (FOC) of Multi-Mission Maritime Aircraft (MMA) is achieved. Funding supports a multitude of obsolescence sustainment, training/logistics and war fighting capability upgrades that are key in keeping the P-3 platform relevant until the projected P-8A FOC. Sustaining the sensor capabilities provided by the APS-137D (V) 5 imaging radar, the Advanced Imaging Multi-Spectral Sensor (AIMS) electro optical/infrared(EO/IR) system, ALR 95 Electronic Support Measures(ESM), Tactical Common Data Link (TCDL), small circular area of probability weapon system (Maverick, Standoff Land Attack Missile (SLAM), SLAM-Extended Range, provisions to carry and launch all Mil Std 1760 Digital weapons with Digital Stores Management System (DSMS), Block Modification Upgrade Program(BMUP) Sustainment, Fleet Response, P-3 Obsolescence Upgrades, ALE-47/AAR-47 missile warning countermeasures due to obsolescence is essential in order to maintain these vital capabilities. Additional systems and capabilities may be required in order to remain effective in the Sea Power 21 Construct. These systems include: MATT, APS-137 radar; Acoustic systems, AIMS EO/IR; Multi-Mission Advanced Tactical Terminal; Link 16; Global Communication & Control System - Maritime (GCCS-M); Integrated Tactical Picture (ITP); International Marine/Maritime Satellite; Precision Targeting Workstation (PTW); Over-the-Horizon Airborne Sensor Information System; Video Distribution Controller (VDC); Tactical Mission Computer(TMC); ALR-95 ESM; Demand Assigned Multiple Access (DAMA) Satcom; MST; TC DL; Recorders including the High Resolution Digital Recorder; ALE47/AAR47; Digital Stores Management System (DSMS), Advanced Data Storage System (ADSS); Cockpit Proximity Video System (CPVS); all weapon systems including missiles, torpedoes, mines, as well as acoustic system upgrades. These improvements are a vital element of the P-3 sustainment bridge for mission aircraft, including Anti-surface Warfare Improvement Program (AIP) and BMUP, significantly enhancing the strategy of a smaller, more ready, more capable P-3 force during the bridge to MMA. P-3 C Mission Systems Sustainment is a branch of the ASW Maritime Improvement program (AMIP) to provide for obsolescence, technology refresh and technology insertion to P-3C mission systems. FY17-FY18 P-3 obsolescence upgrades includes the upgrade of Cockpit Proximity Video System (CPVS) procured under critical systems OISP 53-85 as a Pacific Fleet Urgent Operational Need (UON). FY18-FY19 P-3 obsolescence upgrades addresses obsolescence issues on 18 BMUP aircraft. BMUP aircraft are supporting the Littoral Surveillance Radar System (LSRS) mission through 2023. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: This modification makes maximum use of previously developed subsystems.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0538 / P-3 Series					Modification Number / Title: 1 / P-3 MISSION SYSTEMS(OSIP 006-08)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: P-3C				Modification Type: Operational Improvement				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: P-3 MISSION SYSTEMS(OSIP 006-08)</i>													
<i>B Kits</i>													
<i>Recurring</i>													
2.1.1) P-3 Obsolescence Upgrades - Organic	140 / 8.157	- / 0.657	- / 0.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	140 / 9.575	
2.1.3) Archived Mods - Organic	43 / 7.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 7.816	
<i>Subtotal: Recurring</i>	- / 15.973	- / 0.657	- / 0.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 17.391	
<i>Non-Recurring</i>													
2.2.1) Installation Equipment N/R - Organic	- / 7.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.204	
<i>Subtotal: Non-Recurring</i>	- / 7.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 7.204	
<i>Subtotal: P-3 MISSION SYSTEMS(OSIP 006-08)</i>	183 / 23.177	- / 0.657	- / 0.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	183 / 24.595	
<i>Subtotal: Procurement, All Modification Items</i>	- / 23.177	- / 0.657	- / 0.761	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 24.595	
Support (All Modification Items)													
3.1) ECO	- / 6.145	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.145	
3.2) Data	- / 0.614	- / 0.008	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.632	
3.3) Training Equipment	- / 1.366	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.366	
3.4) Support Equipment	- / 0.357	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.357	
3.5) ILS	- / 0.622	- / 0.008	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.640	
3.6) Other Support	- / 18.910	- / 0.027	- / 0.022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.959	
<i>Subtotal: Support</i>	- / 28.014	- / 0.043	- / 0.042	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 28.099	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	51.191	0.700	0.803	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.694	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0538 / P-3 Series	Modification Number / Title: 1 / P-3 MISSION SYSTEMS(OSIP 006-08)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: P-3 MISSION SYSTEMS(OSIP 006-08)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0538 / P-3 Series					Modification Number / Title: 2 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	4,858.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4,858.269
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	4,858.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4,858.269
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	4,858.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4,858.269
<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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0538 / P-3 Series					Modification Number / Title: 2 / Inactive OSIPs			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
2.2.1) Inactive OSIPS - Organic ^(*)	- / 4,858.269	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4,858.269	
<i>Subtotal: Procurement</i>	<i>- / 4,858.269</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 4,858.269</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	4,858.269	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4,858.269	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0544 / E-2 Series

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: 000

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,495.765	53.713	82.980	117.059	0.000	117.059	184.307	243.124	240.587	265.830	785.310	3,468.675
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,495.765	53.713	82.980	117.059	0.000	117.059	184.307	243.124	240.587	265.830	785.310	3,468.675
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,495.765	53.713	82.980	117.059	0.000	117.059	184.307	243.124	240.587	265.830	785.310	3,468.675
<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:

This line item funds modifications to the E-2 aircraft. The E-2 is an all-weather, carrier based, airborne early warning, command and control aircraft that extends task force defense perimeters by providing early warning of approaching enemy units and by vectoring interceptors into attack position. Additionally, the HAWKEYE provides strike control, radar surveillance, search and rescue assistance, communications relay and automatic tactical data exchange. As the result of technological advancements, the Commercial-Off-The-Shelf (COTS) hardware/software of the Mission Computer (MCU) will change or become obsolete in the very near future.

-Technology Insertion Operational Safety and Improvement Program (OSIP) (05-01): Supports assembly, validation and configuration management of COTS hardware and software of the MCU.

-Dual Transmit Satellite Communications OSIP (08-14): Provides the E-2 with an additional Satellite Communications satisfying a capability gap that was identified during Operation Enduring Freedom.

-E-2 Airframe Change Directives (ACDs) OSIP (05-15): Retrofit ACDs and Engineering Change Proposals (ECPs) necessary to sustain and improve the E-2 system operations.

-E-2D Automatic Identification System (AIS) OSIP (09-16): Provides enhanced maritime target Combat Identification (CID) capability in support of Battlefield Management, Command and Control (BMC2) and Surface Warfare (SUW) mission.

-E-2 Embedded National Tactical Receiver (ENTR) OSIP (08-17): Provides the E-2 with the capability to receive intelligence data from national assets for real-time, emergent threat or CID data, compressing tactical engagement timeline for Naval Integrated Fire Control - Counter Air (NIFC-CA) kill chains.

-Structural Enhancements OSIP (12-17): Enables the aircrafts full service life and removes vehicle performance envelope restrictions. This will mitigate the potential for aircraft grounding.

-E-2D Network File Servers (NFS) OSIP (13-17): Used to load software programs and record data directly associated with the planned and tactical activity during the performance of its missions.

-E-2D Aerial Refueling (AR) OSIP (02-18): Allows the E-2 to receive fuel from various organic and non-organic tanker aircraft. It will provide Expanded Battle Space Surveillance and Targeting through significantly enhanced persistence and increased flexibility (range & endurance).

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0544 / E-2 Series
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: 000		
-E-2 Secret Internet Protocol Router Chat (SIPR CHAT) OSIP (03-18): Supports the integration of current collaboration tools including tactical "chat" (text) communications, real-time tasking, and Air Tasking Order distribution. Recent real world operations have demonstrated a migration of Command and Control communications from voice to Internet protocol based networks. -Crypto Modernization / Frequency Remapping OSIP (07-18): Addresses MIDS JTRS/LINK 16 crypto modernization and frequency remapping to maintain E-2D LINK 16 interoperability including Concurrent Multi-Netting 4 (CMN-4). -Navigational Warfare (NAVWAR) OSIP (11-19): Allows the E-2D Advanced Hawkeye (AHE) to operate in areas where signal disruption would prohibit unprotected GPS reception. The E-2D AHE will be able to provide continuous operations in a degraded GPS environment for mission areas that depend on GPS for precise position, navigation, and timing. Also, provides Naval platforms improved access to GPS signals in challenged and jamming environments. Modernizes GPS receivers to utilize the new M-Code GPS Signal in Space, incorporate enhanced cryptology, deliver greater position and time accuracy, provide improved protection against signal spoofing as compared to legacy Selective Anti-Jam Anti-Spoof Module (SAASM) receivers and replace an obsolescence issue. Additionally, GPS Modernization delivers increased GPS anti-jam protection and enables blue force GPS electronic attack. Enables compliance with Public Law 111-383 and Office of the Secretary of Defense Oversight Council guidance. -Advanced Radar Processor (ARP) OSIP (03-20): Essential upgrade to the E-2D APY-9 Radar system that improves the radar processing capability six fold, reduces production costs, addresses obsolescence, reduces future support costs and enables future growth by reducing the number of Subsystem Replaceable Assemblys in the processors. ARP is required to support the transition of current Science & Technology investments in Naval Integrated Fire Control-Counter Air (NIFC-CA) (Increment 3), Counter Electronic Attack and Sensor Netting. -E-2 Technology Upgrades (16-20): Ensures fleet configuration management and address deficiencies and obsolescence of hardware and software systems. This OSIP will execute a strategic, comprehensive plan to mitigate component level end of production and end of support due to deficiencies and obsolescence on all E-2 aircraft and trainers. -Datalinks (18-20): Addresses Crypto Modernization (CM) upgrades and Frequency Remapping (FR) capabilities. This OSIP will field the LINK 16 CM/FM capability into the E-2 Series aircraft. Funding will also be used to integrate and field Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) Tactical Targeting Network Technology (TTNT) wave form. -Electronic Support Measures OSIP (07-21): Digital upgrade greatly enhances CID, battle space awareness, and effectiveness of blue forces. Combat Identification (#3) requirements and network sensor systems (#2) are specifically called out on COMACCLOGWING's FY14 E-2D Naval Aviation Readiness Group (NARG) Message. -Test Asset Viability (08-21): Upgrades the two E-2D test assets and E-2 Systems Test and Evaluation Lab (ESTEL) to more accurately represent a production aircraft. -Counter Electronic Attack (CEA) (01-24): Improves the ability of the E-2D platform to detect and track targets in a dense Electronic Attack (EA) environment. Modifications to the radar processing architecture and software improvements will allow the radar to detect and track targets. There are 44 E-2Cs (delivered) and 51 E-2Ds (delivered or on contract) for a total of 95 E-2 aircraft. The E-2 has a service life of 10,000 flight hours.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0544 / E-2 Series					
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: 000										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / 005-01 Technology Insertion (Mission Performance Enhancement)				- / 133.838	- / 3.752	- / 6.075	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / 008-14 Dual Transmit SATCOM (Mission Performance Enhancements)				- / 14.802	- / 3.986	- / 0.655	- / 0.000	- / 0.000	- / 0.000
P-3a	3 / 005-15 E-2 Airframe Change Directives (Mission Performance Enhancements)				- / 6.823	- / 4.154	- / 3.806	- / 4.465	- / 0.000	- / 4.465
P-3a	4 / 009-16 E-2D AIS (Mission Performance Enhancements)				- / 3.791	- / 4.748	- / 1.545	- / 0.798	- / 0.000	- / 0.798
P-3a	5 / 008-17 E-2 ENTR (Missions Performance Enhancements)				- / 0.070	- / 4.561	- / 1.780	- / 1.501	- / 0.000	- / 1.501
P-3a	6 / 012-17 Structural Enhancements (Mission Performance Enhancements)				- / 4.509	- / 5.636	- / 10.924	- / 6.978	- / 0.000	- / 6.978
P-3a	7 / 013-17 Network File Server (Mission Performance Enhancements)				- / 2.801	- / 0.669	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	8 / 002-18 E-2D Aerial Refueling (Mission Performance Enhancements)				- / 0.000	- / 24.207	- / 41.884	- / 42.650	- / 0.000	- / 42.650
P-3a	9 / 003-18 E-2 SIPR CHAT (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 1.985	- / 8.876	- / 0.000	- / 8.876
P-3a	10 / 007-18 Crypto Modernization (Mission Performance Enhancement)				- / 0.000	- / 2.000	- / 2.641	- / 0.000	- / 0.000	- / 0.000
P-3a	11 / 011-19 Navigational Warfare (NAVWAR) (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 6.985	- / 0.000	- / 6.985
P-3a	12 / 003-20 Advanced Radar Processor (Mission Performance Enhancement)				- / 0.000	- / 0.000	- / 11.685	- / 21.738	- / 0.000	- / 21.738
P-3a	13 / 016-20 Technology Upgrades (Mission Performance Enhancement)				- / 0.000	- / 0.000	- / 0.000	- / 4.260	- / 0.000	- / 4.260
P-3a	14 / 018-20 Datalinks (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 18.808	- / 0.000	- / 18.808
P-3a	15 / 007-21 Electronic Support Measures (Mission Performance Enhancement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	16 / 008-21 Test Asset Viability (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	17 / 001-24 Counter Electronic Attack (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	18 / Inactive OSIPs (TBD)				- / 1,329.131	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,495.765	- / 53.713	- / 82.980	- / 117.059	- / 0.000	- / 117.059
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / 005-01 Technology Insertion (Mission Performance Enhancement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 143.665
P-3a	2 / 008-14 Dual Transmit SATCOM (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 19.443
P-3a	3 / 005-15 E-2 Airframe Change Directives (Mission Performance Enhancements)				- / 6.857	- / 5.014	- / 6.125	- / 6.467	- / 0.000	- / 43.711

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0544 / E-2 Series				
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: 000										
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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	4 / 009-16 E-2D AIS (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 10.882
P-3a	5 / 008-17 E-2 ENTR (Missions Performance Enhancements)				- / 1.445	- / 1.226	- / 0.791	- / 0.000	- / 0.000	- / 11.374
P-3a	6 / 012-17 Structural Enhancements (Mission Performance Enhancements)				- / 7.750	- / 7.767	- / 11.853	- / 20.487	- / 41.730	- / 117.634
P-3a	7 / 013-17 Network File Server (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.470
P-3a	8 / 002-18 E-2D Aerial Refueling (Mission Performance Enhancements)				- / 38.273	- / 39.020	- / 39.903	- / 41.429	- / 135.051	- / 402.417
P-3a	9 / 003-18 E-2 SIPR CHAT (Mission Performance Enhancements)				- / 6.848	- / 5.794	- / 2.748	- / 0.000	- / 0.000	- / 26.251
P-3a	10 / 007-18 Crypto Modernization (Mission Performance Enhancement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 4.641
P-3a	11 / 011-19 Navigational Warfare (NAVWAR) (Mission Performance Enhancements)				- / 15.774	- / 16.302	- / 16.659	- / 10.421	- / 4.405	- / 70.546
P-3a	12 / 003-20 Advanced Radar Processor (Mission Performance Enhancement)				- / 26.146	- / 65.136	- / 49.563	- / 24.422	- / 4.083	- / 202.773
P-3a	13 / 016-20 Technology Upgrades (Mission Performance Enhancement)				- / 5.043	- / 4.362	- / 4.162	- / 32.723	- / 181.146	- / 231.696
P-3a	14 / 018-20 Datalinks (Mission Performance Enhancements)				- / 38.673	- / 34.933	- / 30.434	- / 7.885	- / 0.000	- / 130.733
P-3a	15 / 007-21 Electronic Support Measures (Mission Performance Enhancement)				- / 34.949	- / 34.008	- / 35.084	- / 55.508	- / 113.540	- / 273.089
P-3a	16 / 008-21 Test Asset Viability (Mission Performance Enhancements)				- / 2.549	- / 29.562	- / 43.265	- / 1.803	- / 0.000	- / 77.179
P-3a	17 / 001-24 Counter Electronic Attack (Mission Performance Enhancements)				- / 0.000	- / 0.000	- / 0.000	- / 64.685	- / 305.355	- / 370.040
P-3a	18 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1,329.131
P-40	Total Gross/Weapon System Cost				- / 184.307	- / 243.124	- / 240.587	- / 265.830	- / 785.310	- / 3,468.675
*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: OSIP 018-20 Datalinks combines previous OSIPs 001-17 LINK 16, 001-18 E-2 MIDS/JTRS TTNT, and current OSIP 007-18 Crypto Modernization in FY 2020 and out. The FY 2020 funding request was reduced by \$6.600 million to account for the availability of prior year execution balances.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 1 / 005-01 Technology Insertion

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	133.838	3.752	6.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.665
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	133.838	3.752	6.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.665
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	133.838	3.752	6.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.665
<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:

Addresses obsolescence and deficiencies of Commercial-Off-The-Shelf (COTS) software and hardware of E-2 computing resources. Commercial technology obsolescence and deficiencies drive hardware and software changes in computing resources for the E-2 Aircraft. Funding is required to support capability for assembly, validation, and configuration management of COTS hardware/software provided to fleet squadrons and updated on a 4-year technology cycle. Specific examples include video boards, memory boards, Computer Processing Units cards, compilers, middleware, backplanes, and operating systems that will change or become obsolete.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The E-2 Program Support Activity will insure software is upgraded, revised, and integrated so it functions with the versions of the COTS hardware and software delivered. The integration effort must start no less than one year prior to delivery.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 1 / 005-01 Technology Insertion			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancement				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> 005-01 Technology Insertion													
B Kits													
Recurring													
1.1.1) E2C COM-Express Mod Replacement - Organic	- / 0.832	145 / 0.969	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	145 / 1.801	
1.1.2) E2C B-Kits 1 - Organic	- / -	- / -	27 / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 1.500	
1.1.3) E2D B-Kits 1 - Organic	- / -	- / -	40 / 1.897	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 1.897	
<i>Subtotal: Recurring</i>	- / 0.832	- / 0.969	- / 3.397	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.198	
<i>Subtotal: 005-01 Technology Insertion</i>	- / 0.832	145 / 0.969	67 / 3.397	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	212 / 5.198	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.832	- / 0.969	- / 3.397	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.198	
Support (All Modification Items)													
2.1) Data	- / 0.902	- / 0.025	- / 0.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.952	
2.2) ILS	- / 9.072	- / 0.701	- / 0.672	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.445	
2.3) Software Upgrades	- / 14.416	- / 0.318	- / 0.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.939	
2.4) Training Equipment	- / 4.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.500	
2.5) Other Support	- / 104.116	- / 1.739	- / 1.776	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 107.631	
<i>Subtotal: Support</i>	- / 133.006	- / 2.783	- / 2.678	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 138.467	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	133.838	3.752	6.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.665	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 1 / 005-01 Technology Insertion
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: 005-01 Technology Insertion		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 2 / 008-14 Dual Transmit SATCOM			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	14.802	3.986	0.655	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.443
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	14.802	3.986	0.655	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.443
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	14.802	3.986	0.655	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.443
<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:

Dual Transmit Satellite Communication (SATCOM) OSIP will integrate and field the capability into the E-2 by modifying aircraft cabling/components and the antenna. This integration will allow the aircrew to simultaneously receive/transmit on two SATCOM channels, allowing use of two discrete command nets for voice and data. This capability is critical to prevent severe communication gaps with the carrier strike group during missions in theatre.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Dual Transmit SATCOM system design and development began in FY09. Flight test completed in FY15. Procurement of kits began in FY17.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 2 / 008-14 Dual Transmit SATCOM			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> 008-14 Dual Transmit SATCOM													
B Kits													
Recurring													
1.1.1) E-2D Dual Transmit SATCOM - NonOrganic	13 / 11.876	3 / 2.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 14.262	
<i>Subtotal: Recurring</i>	- / 11.876	- / 2.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 14.262	
<i>Subtotal: 008-14 Dual Transmit SATCOM</i>	13 / 11.876	3 / 2.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 14.262	
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.876	- / 2.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 14.262	
Support (All Modification Items)													
2.1) Data	- / 0.352	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.352	
2.2) ILS	- / 0.192	- / 0.332	- / 0.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.606	
2.3) Training Equipment	- / -	- / 0.155	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.155	
2.4) Support Equipment	- / 0.545	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.545	
2.5) Other Support	- / 1.388	- / 0.489	- / 0.334	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.211	
<i>Subtotal: Support</i>	- / 2.477	- / 0.976	- / 0.416	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.869	
Installation													
<i>Modification Item 1 of 1:</i> 008-14 Dual Transmit SATCOM	- / 0.449	- / 0.624	- / 0.239	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1.312	
<i>Subtotal: Installation</i>	- / 0.449	- / 0.624	- / 0.239	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.312	
Total													
Total Cost (Procurement + Support + Installation)	14.802	3.986	0.655	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.443	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 2 / 008-14 Dual Transmit SATCOM											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 008-14 Dual Transmit SATCOM																															
Manufacturer Information																															
Manufacturer Name: Dual Transmit SATCOM															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 8															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		May 2018																													
Delivery Dates		May 2019																													
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: E-2D Dual Transmit SATCOM																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.449		8 / 0.624		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		13 / 1.073					
FY 2018		- / -		- / -		3 / 0.239		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 0.239					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		5 / 0.449		8 / 0.624		3 / 0.239		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		16 / 1.312					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	4	4	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	5	-	-	4	4	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.823	4.154	3.806	4.465	0.000	4.465	6.857	5.014	6.125	6.467	0.000	43.711
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.823	4.154	3.806	4.465	0.000	4.465	6.857	5.014	6.125	6.467	0.000	43.711
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.823	4.154	3.806	4.465	0.000	4.465	6.857	5.014	6.125	6.467	0.000	43.711
<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: Retrofit Airframe Change Directives (ACDs), also known as Technical Directives (TDs), are required for the E-2 aircraft to support the incorporation of established capability, reliability, maintainability, obsolescence, safety and supportability improvements. Funds will be used to incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve E-2 system operations. Planned kit procurements are made up of multiple ACD/TDs needed for the Fleet in each fiscal year. FY 2020 funding requirement increase due to Delta System/Software Configuration 3 (DSSC-3) retrofit efforts. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: E-2 Aircraft ACDs development and designs completed in FY12. Approved ACDs production cut in began in FY13. Procurement of kits began in FY15.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 005-15 E-2 Airframe Change Directives													
A Kits													
Recurring													
1.1.1) Archived Cost Elements - Organic		- / 3.142	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.142
1.1.2) E-2 Common Sensor Unit - NonOrganic		30 / 1.016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 1.016
1.1.3) E-2 Starter Cut-out Switch - NonOrganic		30 / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 0.150
1.1.4) E-2 Engine Bleed Repair Kit - Organic		- / 0.766	40 / 0.117	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 0.883
1.1.5) E-2 DSSC-3 Modification Kit - NonOrganic		- / -	- / -	- / -	10 / 0.020	- / -	10 / 0.020	29 / 0.059	- / -	- / -	- / -	- / -	39 / 0.079
1.1.6) E-2 2B ACD Kit - NonOrganic		- / -	23 / 3.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 3.450
1.1.7) E-2 3A ACD kit - NonOrganic ⁽¹⁾		- / -	- / -	37 / 2.549	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	37 / 2.549
1.1.8) E-2 4A ACD kit - NonOrganic ⁽²⁾		- / -	- / -	- / -	41 / 1.607	- / -	41 / 1.607	- / -	- / -	- / -	- / -	- / -	41 / 1.607
1.1.9) E-2 4B ACD kit - NonOrganic		- / -	- / -	- / -	- / -	- / -	- / -	53 / 2.120	- / -	- / -	- / -	- / -	53 / 2.120
1.1.10) E-2 5A ACD kit - NonOrganic		- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 2.630	- / -	- / -	- / -	57 / 2.630
1.1.11) E-2 5B ACD Kit - NonOrganic		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 3.192	- / -	- / -	57 / 3.192
1.1.12) E-2 6A ACD Kits - NonOrganic		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 3.253	- / -	57 / 3.253
Subtotal: Recurring		- / 5.074	- / 3.567	- / 2.549	- / 1.627	- / -	- / 1.627	- / 2.179	- / 2.630	- / 3.192	- / 3.253	- / 0.000	- / 24.071
Non-Recurring													
1.2.1) Installation Kits N/R - Organic ⁽³⁾		- / 0.150	- / 0.183	- / 0.121	- / 0.320	- / -	- / 0.320	- / 0.430	- / 0.350	- / 0.357	- / 0.364	- / -	- / 2.275
Subtotal: Non-Recurring		- / 0.150	- / 0.183	- / 0.121	- / 0.320	- / -	- / 0.320	- / 0.430	- / 0.350	- / 0.357	- / 0.364	- / 0.000	- / 2.275
Subtotal: 005-15 E-2 Airframe Change Directives		60 / 5.224	63 / 3.750	37 / 2.670	51 / 1.947	- / -	51 / 1.947	82 / 2.609	57 / 2.980	57 / 3.549	57 / 3.617	- / -	464 / 26.346
Subtotal: Procurement, All Modification Items		- / 5.224	- / 3.750	- / 2.670	- / 1.947	- / -	- / 1.947	- / 2.609	- / 2.980	- / 3.549	- / 3.617	- / 0.000	- / 26.346
Support (All Modification Items)													
3.1) Data		- / 0.249	- / 0.033	- / 0.036	- / 0.037	- / -	- / 0.037	- / 0.038	- / 0.039	- / 0.040	- / 0.041	- / -	- / 0.513
3.2) ILS ⁽⁴⁾		- / 0.141	- / 0.068	- / 0.070	- / 0.360	- / -	- / 0.360	- / 0.626	- / 0.319	- / 0.325	- / 0.332	- / -	- / 2.241
3.4) Support Equipment		- / -	- / -	- / -	- / 0.021	- / -	- / 0.021	- / 0.030	- / -	- / -	- / -	- / -	- / 0.051
3.5) Other Support		- / 0.306	- / 0.153	- / 0.156	- / 0.295	- / -	- / 0.295	- / 0.301	- / 0.238	- / 0.243	- / 0.248	- / -	- / 1.940
Subtotal: Support		- / 0.696	- / 0.254	- / 0.262	- / 0.713	- / -	- / 0.713	- / 0.995	- / 0.596	- / 0.608	- / 0.621	- / 0.000	- / 4.745
Installation													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives	- / 0.903	- / 0.150	- / 0.874	- / 1.805	- / 0.000	- / 1.805	- / 3.253	- / 1.438	- / 1.968	- / 2.229	- / 0.000	- / 12.620	
<i>Subtotal: Installation</i>	- / 0.903	- / 0.150	- / 0.874	- / 1.805	- / -	- / 1.805	- / 3.253	- / 1.438	- / 1.968	- / 2.229	- / 0.000	- / 12.620	
Total													
Total Cost (Procurement + Support + Installation)	6.823	4.154	3.806	4.465	0.000	4.465	6.857	5.014	6.125	6.467	0.000	43.711	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0544 / E-2 Series		Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives							
Manufacturer Information							
Manufacturer Name: DSSC-3 Modification				Manufacturer Location: Field Mod Team			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 6			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates			Nov 2019	Nov 2020			
Delivery Dates			May 2020	May 2021			
Manufacturer Name: E-2 Aircraft 4B ACD				Manufacturer Location: Field Mod Team			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 12			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates				Nov 2020			
Delivery Dates				Nov 2021			
Manufacturer Name: E-2D Aircraft 4A ACD				Manufacturer Location: Field Mod Team			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 12			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates			Nov 2019				
Delivery Dates			Nov 2020				
Manufacturer Name: E-2 5B ACD Kit				Manufacturer Location: TBD			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 6			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates						Nov 2022	
Delivery Dates						May 2023	
Manufacturer Name: E-2 Starter Cut-out Switch				Manufacturer Location: Field Mod Team			
Administrative Leadtime (<i>in Months</i>): 2				Production Leadtime (<i>in Months</i>): 12			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							
Manufacturer Name: E-2 Common Sensor Unit				Manufacturer Location: Field Mod Team			
Administrative Leadtime (<i>in Months</i>): 3				Production Leadtime (<i>in Months</i>): 2			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives												
Manufacturer Information												
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Delivery Dates												
Manufacturer Name: E-2 Aircraft 5A ACD				Manufacturer Location: Field Mod Team								
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12								
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates					Nov 2021							
Delivery Dates					Nov 2022							
Manufacturer Name: E-2 2B ACD Kit				Manufacturer Location: Field Mod Team								
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 3								
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates	Nov 2017											
Delivery Dates	Feb 2018											
Manufacturer Name: E-2 3A ACD				Manufacturer Location: Field Mod Team								
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12								
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates		Nov 2018										
Delivery Dates		Nov 2019										
Manufacturer Name: E-2 6A ACD Kits				Manufacturer Location: Field Mod Team								
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 3								
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates								Nov 2023				
Delivery Dates								Feb 2024				
Installation Information												
Method of Implementation: Field Mod Team:: Installation Name: E-2 Common Sensor Unit												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	30 / 0.903	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 0.903

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 Common Sensor Unit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 0.903	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 0.903

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Out	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30

Method of Implementation: Field Mod Team:: Installation Name: E-2 Starter Cut-out Switch

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	- / -	30 / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 0.150
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 Starter Cut-out Switch

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	- / -	30 / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 0.150

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30		
Out	-	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30		

Method of Implementation: Field Mod Team:: Installation Name: E-2 DSSC-3 Modification Kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	10 / 0.695	0 / 0.000	10 / 0.695	- / -	- / -	- / -	- / -	0 / 0.000	10 / 0.695
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	29 / 2.053	- / -	- / -	- / -	0 / 0.000	29 / 2.053
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	10 / 0.695	0 / 0.000	10 / 0.695	29 / 2.053	- / -	- / -	- / -	0 / 0.000	39 / 2.748

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	-	-	6	7	8	8	-	-	-	-	-	-	-	-	-	-	39	
Out	-	-	-	-	-	-	-	-	-	-	-	5	5	-	-	6	7	8	8	-	-	-	-	-	-	-	-	-	-	39	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 2B ACD Kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	23 / 0.874	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	23 / 0.874
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	23 / 0.874	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	23 / 0.874

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Out	-	-	-	-	-	-	10	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23

Method of Implementation: Field Mod Team:: Installation Name: E-2 3A ACD kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	37 / 1.110	0 / 0.000	37 / 1.110	- / -	- / -	- / -	- / -	0 / 0.000	37 / 1.110
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 3A ACD kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	- / -	- / -	- / -	37 / 1.110	0 / 0.000	37 / 1.110	- / -	- / -	- / -	- / -	0 / 0.000	37 / 1.110

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	7	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37
Out	-	-	-	-	-	-	-	-	-	7	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	37

Method of Implementation: Field Mod Team:: Installation Name: E-2 4A ACD kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	41 / 1.200	- / -	- / -	- / -	0 / 0.000	41 / 1.200
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	41 / 1.200	- / -	- / -	- / -	0 / 0.000	41 / 1.200

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy																								Date: March 2019							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1												P-1 Line Item Number / Title: 0544 / E-2 Series												Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives							
ID Code (A=Service Ready, B=Not Service Ready) :																		MDAP/MAIS Code:													
Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: E-2 4A ACD kit																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	11	-	-	-	-	-	-	-	-	-	-	-	-	-	41
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	11	-	-	-	-	-	-	-	-	-	-	-	-	-	41
Method of Implementation: Field Mod Team:: Installation Name: E-2 4B ACD kit																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 1.438	- / -	- / -	0 / 0.000	53 / 1.438																	
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 1.438	- / -	- / -	0 / 0.000	53 / 1.438																	
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	14	14	15	-	-	-	-	-	-	-	-	-	53
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	14	14	15	-	-	-	-	-	-	-	-	-	53

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 5A ACD kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 0.501	- / -	0 / 0.000	57 / 0.501
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 0.501	- / -	0 / 0.000	57 / 0.501

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	12	-	-	-	-	-	57	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	15	15	12	-	-	-	-	-	57	

Method of Implementation: Field Mod Team:: Installation Name: E-2 5B ACD Kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 1.467	19 / 0.735	0 / 0.000	57 / 2.202
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives

Installation Information

Method of Implementation: Field Mod Team:: Installation Name: E-2 5B ACD Kit

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 1.467	19 / 0.735	0 / 0.000	57 / 2.202

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	-	-	-	-	-	57
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	-	-	-	-	-	57

Method of Implementation: Field Mod Team:: Installation Name: E-2 6A ACD Kits

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 1.494	0 / 0.000	57 / 1.494
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 1.494	0 / 0.000	57 / 1.494

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy																						Date: March 2019									
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 3 / 005-15 E-2 Airframe Change Directives											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 005-15 E-2 Airframe Change Directives																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: E-2 6A ACD Kits																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
		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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	-	57
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	-	57
Footnotes: ⁽¹⁾ Kits are made up of multiple ACDs needed for the Fleet in each fiscal year. ⁽²⁾ Kits are made up of multiple ACDs needed for the Fleet in each fiscal year. ⁽³⁾ Installation Kits N/R: Engineering Change Proposal Development for multiple kits in each fiscal year. ⁽⁴⁾ ILS fluctuates depending on the amount of support needed by the Fleet in each fiscal year.																															
Method of Implementation (Organic): E-2 Engine Bleed Repair Kit																						Installation Quantity: 40									

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 4 / 009-16 E-2D AIS

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	3.791	4.748	1.545	0.798	0.000	0.798	0.000	0.000	0.000	0.000	0.000	10.882
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	3.791	4.748	1.545	0.798	0.000	0.798	0.000	0.000	0.000	0.000	0.000	10.882
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	3.791	4.748	1.545	0.798	0.000	0.798	0.000	0.000	0.000	0.000	0.000	10.882
<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:

Automatic Identification System (AIS) is a tracking system which provides identification, course and speed of maritime surface vessels. E-2D AIS is a critical component in developing and maintaining the common tactical picture for naval and joint forces. AIS will provide enhanced maritime target Combat ID capability in support of Battlefield Management, Command and Control (BMC2) and Surface Warfare (SUW) mission capability. E-2D AIS supports Combat Identification (CID) gap identified at Fleet Forces Command (FFC) war gaming workshop and is an E-2D Capability Development Document (CDD) requirement (JROC approved March 3, 2009). AIS is already incorporated in the E-2C.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

E-2D AIS system development and design completed in FY13. Flight test completed in FY15. Procurement of kits began in FY17.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 4 / 009-16 E-2D AIS			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 009-16 E-2D AIS													
A Kits													
Recurring													
1.1.1) E-2D AIS A-Kit - NonOrganic	20 / 1.413	10 / 0.730	4 / 0.298	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 2.441	
Subtotal: Recurring	- / 1.413	- / 0.730	- / 0.298	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.441	
B Kits													
Recurring													
2.1.1) E-2D AIS B-Kit - Organic ⁽⁵⁾	- / 0.464	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.464	
Subtotal: Recurring	- / 0.464	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.464	
Subtotal: 009-16 E-2D AIS	20 / 1.877	10 / 0.730	4 / 0.298	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 2.905	
Subtotal: Procurement, All Modification Items	- / 1.877	- / 0.730	- / 0.298	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.905	
Support (All Modification Items)													
3.1) Data	- / 0.022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.022	
3.2) ILS	- / 0.043	- / 0.047	- / 0.036	- / 0.036	- / -	- / 0.036	- / -	- / -	- / -	- / -	- / -	- / 0.162	
3.3) Training Equipment	- / -	- / 2.629	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.629	
3.4) Support Equipment	- / 0.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.396	
3.5) Other Support	- / 0.581	- / 0.510	- / 0.520	- / 0.530	- / -	- / 0.530	- / -	- / -	- / -	- / -	- / -	- / 2.141	
Subtotal: Support	- / 1.042	- / 3.186	- / 0.556	- / 0.566	- / -	- / 0.566	- / -	- / -	- / -	- / -	- / 0.000	- / 5.350	
Installation													
Modification Item 1 of 1: 009-16 E-2D AIS	- / 0.872	- / 0.832	- / 0.691	- / 0.232	- / 0.000	- / 0.232	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.627	
Subtotal: Installation	- / 0.872	- / 0.832	- / 0.691	- / 0.232	- / -	- / 0.232	- / -	- / -	- / -	- / -	- / 0.000	- / 2.627	
Total													
Total Cost (Procurement + Support + Installation)	3.791	4.748	1.545	0.798	0.000	0.798	0.000	0.000	0.000	0.000	0.000	10.882	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 4 / 009-16 E-2D AIS											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 009-16 E-2D AIS																															
Manufacturer Information																															
Manufacturer Name: AIS															Manufacturer Location: FIELD MOD TEAM																
Administrative Leadtime <i>(in Months)</i> : 11															Production Leadtime <i>(in Months)</i> : 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Aug 2018				Aug 2019																									
Delivery Dates		Feb 2019				Feb 2020																									
Installation Information																															
Method of Implementation: FIELD MOD TEAM:: Installation Name: E-2D AIS A-Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		10 / 0.872		10 / 0.832		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		20 / 1.704					
FY 2018		- / -		- / -		10 / 0.691		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.691					
FY 2019		- / -		- / -		- / -		4 / 0.232		0 / 0.000		4 / 0.232		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.232					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		10 / 0.872		10 / 0.832		10 / 0.691		4 / 0.232		0 / 0.000		4 / 0.232		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		34 / 2.627			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	4	4	2	-	4	4	2	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Out	10	-	4	4	2	-	4	4	2	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
Footnotes: ⁽⁵⁾ AIS planned production cut in is aircraft 35.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 5 / 008-17 E-2 ENTR			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.070	4.561	1.780	1.501	0.000	1.501	1.445	1.226	0.791	0.000	0.000	11.374
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.070	4.561	1.780	1.501	0.000	1.501	1.445	1.226	0.791	0.000	0.000	11.374
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.070	4.561	1.780	1.501	0.000	1.501	1.445	1.226	0.791	0.000	0.000	11.374
<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:

Integrating the Embedded National Tactical Receiver (ENTR) provides the E-2D capability to receive Integrated Broadcast Service (IBS) intelligence data from national assets for real-time, emergent threat or Combat ID data, compressing tactical engagement timeline for both Naval Integrated Fire Control - Counter Air (NIFC-CA) kill chains. Version 4 is required due to obsolescence of Smart Mount. Due to obsolescence of E-2C legacy MATT receiver, it was not included in the E-2D baseline configuration. This capability will eliminate a high failure item seen in E-2C. This capability is an E-2 baseline Capability Design Document (CDD) threshold requirement and supports gap identified at Fleet Forces Command (FFC) wargaming workshop.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

E-2 ENTR system development and design completed in FY13. Flight test began in FY15. Procurement of kits began in FY18.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 5 / 008-17 E-2 ENTR			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2				Modification Type: Missions Performance Enhancements					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 008-17 E-2 ENTR													
A Kits													
Recurring													
1.1.1) E-2 ENTR - NonOrganic	- / -	10 / 0.059	10 / 0.061	10 / 0.062	- / -	10 / 0.062	9 / 0.057	5 / 0.032	- / -	- / -	- / -	44 / 0.271	
Subtotal: Recurring	- / 0.000	- / 0.059	- / 0.061	- / 0.062	- / -	- / 0.062	- / 0.057	- / 0.032	- / -	- / -	- / 0.000	- / 0.271	
B Kits													
Recurring													
2.1.1) E-2 ENTR - Organic	- / -	10 / 0.475	10 / 0.487	10 / 0.496	- / -	10 / 0.496	9 / 0.455	5 / 0.258	- / -	- / -	- / -	44 / 2.171	
Subtotal: Recurring	- / 0.000	- / 0.475	- / 0.487	- / 0.496	- / -	- / 0.496	- / 0.455	- / 0.258	- / -	- / -	- / 0.000	- / 2.171	
Subtotal: 008-17 E-2 ENTR	- / -	20 / 0.534	20 / 0.548	20 / 0.558	- / -	20 / 0.558	18 / 0.512	10 / 0.290	- / -	- / -	- / -	88 / 2.442	
Subtotal: Procurement, All Modification Items	- / 0.000	- / 0.534	- / 0.548	- / 0.558	- / -	- / 0.558	- / 0.512	- / 0.290	- / -	- / -	- / 0.000	- / 2.442	
Support (All Modification Items)													
3.1) Data	- / -	- / 0.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.043	
3.2) ILS	- / 0.070	- / 0.136	- / 0.101	- / 0.031	- / -	- / 0.031	- / 0.030	- / 0.031	- / 0.029	- / -	- / -	- / 0.428	
3.3) Training Equipment	- / -	- / 3.148	- / 0.198	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.346	
3.4) Support Equipment	- / -	- / 0.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.059	
3.5) Other Support	- / -	- / 0.641	- / 0.694	- / 0.669	- / -	- / 0.669	- / 0.655	- / 0.652	- / 0.619	- / -	- / -	- / 3.930	
Subtotal: Support	- / 0.070	- / 4.027	- / 0.993	- / 0.700	- / -	- / 0.700	- / 0.685	- / 0.683	- / 0.648	- / -	- / 0.000	- / 7.806	
Installation													
Modification Item 1 of 1: 008-17 E-2 ENTR	- / 0.000	- / 0.000	- / 0.239	- / 0.243	- / 0.000	- / 0.243	- / 0.248	- / 0.253	- / 0.143	- / 0.000	- / 0.000	- / 1.126	
Subtotal: Installation	- / 0.000	- / -	- / 0.239	- / 0.243	- / -	- / 0.243	- / 0.248	- / 0.253	- / 0.143	- / -	- / 0.000	- / 1.126	
Total													
Total Cost (Procurement + Support + Installation)	0.070	4.561	1.780	1.501	0.000	1.501	1.445	1.226	0.791	0.000	0.000	11.374	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 5 / 008-17 E-2 ENTR											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 008-17 E-2 ENTR																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: FIELD MOD TEAM																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021				Mar 2022													
Delivery Dates		Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022													
Installation Information																															
Method of Implementation: FIELD MOD TEAM:: Installation Name: E-2 ENTR																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		10 / 0.239		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.239					
FY 2019		- / -		- / -		- / -		10 / 0.243		0 / 0.000		10 / 0.243		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.243					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.248		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.248					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 0.253		- / -		- / -		- / -		0 / 0.000		9 / 0.253					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.143		- / -		- / -		0 / 0.000		5 / 0.143					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		10 / 0.239		10 / 0.243		0 / 0.000		10 / 0.243		10 / 0.248		9 / 0.253		5 / 0.143		- / -		0 / 0.000		44 / 1.126							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	3	3	2	2	3	3	2	2	2	2	2	3	3	2	-	-	-	-	-	-	-	44
Out	-	-	-	-	-	3	3	2	2	3	3	2	2	3	3	2	2	2	2	2	3	3	2	-	-	-	-	-	-	-	44
Method of Implementation (Organic): E-2 ENTR - Not Installed																															
																				Installation Quantity: 44											

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 6 / 012-17 Structural Enhancements

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	4.509	5.636	10.924	6.978	0.000	6.978	7.750	7.767	11.853	20.487	41.730	117.634
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	4.509	5.636	10.924	6.978	0.000	6.978	7.750	7.767	11.853	20.487	41.730	117.634
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	4.509	5.636	10.924	6.978	0.000	6.978	7.750	7.767	11.853	20.487	41.730	117.634
(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 structural modifications to the E-2 series aircraft specifically target improvements to the structural integrity and support costs. These improvements are a vital requirement for E-2 to maintain the aircraft in the Fleet until the planned sundown. Structural changes to the wing center section will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. This effort will sustain the E-2 Fleet in an affordable manner until the follow-on aircraft are fully fielded.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Modifications to the E-2 wing center section began in FY14.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 6 / 012-17 Structural Enhancements			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) WCS - E2C Modification - NonOrganic Installation 1 of 2	4 / 3.045	8 / 2.101	5 / 3.781	5 / 1.952	- / -	5 / 1.952	- / -	- / -	- / -	- / -	- / -	22 / 10.879	
1.1.2) WCS - E2D Modification - NonOrganic Installation 2 of 2	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.687	5 / 2.740	12 / 6.722	17 / 9.713	7 / 4.079	46 / 25.941	
<i>Subtotal: Procurement</i>	- / 3.045	- / 2.101	- / 3.781	- / 1.952	- / -	- / 1.952	- / 2.687	- / 2.740	- / 6.722	- / 9.713	- / 4.079	- / 36.820	
Support													
2.1) Data	- / 0.075	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.075	
2.2) ILS	- / 0.239	- / 0.234	- / 0.396	- / 0.352	- / -	- / 0.352	- / 0.339	- / 0.292	- / 0.297	- / 0.303	- / 4.332	- / 6.784	
2.4) Other Support	- / 1.150	- / 1.018	- / 1.009	- / 1.020	- / -	- / 1.020	- / 1.000	- / 0.940	- / 0.956	- / 0.978	- / 13.965	- / 22.036	
<i>Subtotal: Support</i>	- / 1.464	- / 1.252	- / 1.405	- / 1.372	- / -	- / 1.372	- / 1.339	- / 1.232	- / 1.253	- / 1.281	- / 18.297	- / 28.895	
Installation													
<i>Installation 1 of 2:</i> WCS - E2C Modification	- / -	- / 2.283	- / 5.738	- / 3.654	- / 0.000	- / 3.654	- / 3.724	- / -	- / -	- / -	- / 0.000	- / 15.399	
<i>Installation 2 of 2:</i> WCS - E2D Modification	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.795	- / 3.878	- / 9.493	- / 19.354	- / 36.520	
<i>Subtotal: Installation</i>	- / 0.000	- / 2.283	- / 5.738	- / 3.654	- / -	- / 3.654	- / 3.724	- / 3.795	- / 3.878	- / 9.493	- / 19.354	- / 51.919	
Total													
Total Cost (Procurement + Support + Installation)	4.509	5.636	10.924	6.978	0.000	6.978	7.750	7.767	11.853	20.487	41.730	117.634	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 6 / 012-17 Structural Enhancements											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: WCS - E2C Modification																															
Manufacturer Information																															
Manufacturer Name: WCS- E2C Modification															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 10																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018				Mar 2019				Mar 2020																					
Delivery Dates		Jan 2019				Jan 2020				Jan 2021																					
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: WCS - E2C Modification																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 2.283		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 2.283								
FY 2018		- / -	- / -		8 / 5.738		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 5.738								
FY 2019		- / -	- / -		- / -		5 / 3.654		0 / 0.000		5 / 3.654		- / -		- / -		- / -		- / -		0 / 0.000		5 / 3.654								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		5 / 3.724		- / -		- / -		- / -		0 / 0.000		5 / 3.724								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	4 / 2.283		8 / 5.738		5 / 3.654		0 / 0.000		5 / 3.654		5 / 3.724		- / -		- / -		- / -		0 / 0.000		22 / 15.399								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	3	3	-	2	2	1	-	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Out	-	-	1	1	2	-	2	3	3	-	2	2	1	-	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	22

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0544 / E-2 Series											Modification Number / Title: 6 / 012-17 Structural Enhancements										
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:																
Installation 2 of 2: WCS - E2D Modification																																
Manufacturer Information																																
Manufacturer Name: WCS - E2D Install														Manufacturer Location: Field Mod Team																		
Administrative Leadtime <i>(in Months)</i> : 6														Production Leadtime <i>(in Months)</i> : 10																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates														Mar 2021				Mar 2022				Apr 2023				Apr 2024						
Delivery Dates														Jan 2022				Jan 2023				Jan 2024				Jan 2025						
Installation Information																																
Method of Implementation: Field Mod Team:: Installation Name: WCS - E2D Modification																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 3.795		- / -		- / -		0 / 0.000		4 / 3.795						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 3.878		- / -		0 / 0.000		4 / 3.878						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 9.493		0 / 0.000		9 / 9.493						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		17 / 13.705		17 / 13.705						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		7 / 5.649		7 / 5.649						
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 3.795		4 / 3.878		9 / 9.493		24 / 19.354		41 / 36.520						
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	3	3	3	27	46	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	1	1	1	2	1	3	3	3	27	46	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 7 / 013-17 Network File Server

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2.801	0.669	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.470
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2.801	0.669	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.470
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2.801	0.669	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.470
<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 E-2D aircraft utilize TS-282 FN E-2D Network File Servers (NFS) to load software programs and record data directly associated with the planned and tactical activity during the performance of its missions. This program is to retrofit the NFS into E-2D aircraft.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Preliminary Design Review was completed in the 1st QTR of FY12. Procurement of kits began in 3rd QTR of FY17.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 7 / 013-17 Network File Server			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 013-17 Network File Server													
A Kits													
Recurring													
1.1.1) NFS A Kits - NonOrganic	24 / 2.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 2.801	
Subtotal: Recurring	- / 2.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.801	
Subtotal: 013-17 Network File Server	24 / 2.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 2.801	
Subtotal: Procurement, All Modification Items	- / 2.801	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.801	
Installation													
Modification Item 1 of 1: 013-17 Network File Server	- / 0.000	- / 0.669	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.669	
Subtotal: Installation	- / 0.000	- / 0.669	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.669	
Total													
Total Cost (Procurement + Support + Installation)	2.801	0.669	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.470	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 7 / 013-17 Network File Server											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 013-17 Network File Server																															
Manufacturer Information																															
Manufacturer Name: NFS ⁽⁶⁾															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 7															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: NFS A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		24 / 0.669		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.669					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		24 / 0.669		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.669					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Out	-	-	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Footnotes: ⁽⁶⁾ NFS Install requirement changed from O Level Install to Field Mod Team Install.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 8 / 002-18 E-2D Aerial Refueling		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	24.207	41.884	42.650	0.000	42.650	38.273	39.020	39.903	41.429	135.051	402.417
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	24.207	41.884	42.650	0.000	42.650	38.273	39.020	39.903	41.429	135.051	402.417
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	24.207	41.884	42.650	0.000	42.650	38.273	39.020	39.903	41.429	135.051	402.417
<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 E-2D Aerial Refueling (AR) OSIP (002-18) will allow the E-2D to receive fuel from various organic and non-organic tanker aircraft. It will provide Expanded Battle Space Surveillance and Targeting through significantly enhanced persistence and increased flexibility (range & endurance). DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: Aerial Refueling risk reduction began in FY12. Engineering & Manufacturing Development began in FY13. Preliminary Design Review was 4th quarter FY14 and Critical Design Review was in 3rd quarter FY15. Flight test completed in FY18. Procurement of kits began in FY18.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 8 / 002-18 E-2D Aerial Refueling					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancements				Related RDT&E PEs: 0604234N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 002-18 E-2D Aerial Refueling													
B Kits													
Recurring													
2.1.1) E-2D Aerial Refueling - NonOrganic ⁽⁷⁾													
Subtotal: Recurring													
Subtotal: 002-18 E-2D Aerial Refueling													
Subtotal: Procurement, All Modification Items													
Support (All Modification Items)													
3.1) Data													
3.2) ILS													
3.3) Training Equipment ⁽⁸⁾													
3.4) Support Equipment													
3.5) Other Support													
Subtotal: Support													
Installation													
Modification Item 1 of 1: 002-18 E-2D Aerial Refueling													
Subtotal: Installation													
Total													
Total Cost (Procurement + Support + Installation)													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 8 / 002-18 E-2D Aerial Refueling											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 002-18 E-2D Aerial Refueling																															
Manufacturer Information																															
Manufacturer Name: E-2D Aerial Refueling															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 8															Production Leadtime <i>(in Months)</i> : 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		May 2018				May 2019				May 2020				May 2021				May 2022				May 2023				May 2024					
Delivery Dates		Apr 2019				Apr 2020				Apr 2021				Apr 2022				Apr 2023				Apr 2024				Apr 2025					
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: E-2D Aerial Refueling																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 2018		- / -	- / -		4 / 20.987		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 20.987						
FY 2019		- / -	- / -		- / -		5 / 22.530		0 / 0.000		5 / 22.530		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 22.530						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		5 / 22.980		- / -		- / -		- / -		- / -		0 / 0.000		5 / 22.980						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		5 / 23.440		- / -		- / -		- / -		0 / 0.000		5 / 23.440						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 23.956		- / -		- / -		0 / 0.000		5 / 23.956						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 24.435		- / -		0 / 0.000		5 / 24.435						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 24.899		5 / 24.899						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		11 / 65.234		11 / 65.234						
Total		- / -	- / -		4 / 20.987		5 / 22.530		0 / 0.000		5 / 22.530		5 / 22.980		5 / 23.440		5 / 23.956		5 / 24.435		16 / 90.133		45 / 228.461								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	-	2	3	-	-	2	3	-	-	2	3	-	-	2	3	16	45
Out	-	-	-	-	-	-	-	2	2	-	-	2	3	-	-	2	3	-	-	2	3	-	-	2	3	-	-	2	3	16	45
Footnotes: ⁽⁷⁾ Unit costs updated per negotiated contract costs. Aerial Refueling is planned to cut into the production line on aircraft 46. ⁽⁸⁾ FY18 through FY20 Training requirements; Integration and verification of Aerial Refueling capability into aircrew and maintenance training devices and updates applicable software.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 9 / 003-18 E-2 SIPR CHAT			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	1.985	8.876	0.000	8.876	6.848	5.794	2.748	0.000	0.000	26.251
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	1.985	8.876	0.000	8.876	6.848	5.794	2.748	0.000	0.000	26.251
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	1.985	8.876	0.000	8.876	6.848	5.794	2.748	0.000	0.000	26.251
<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 E-2 Secret Internet Protocol Router Chat (SIPR) OSIP (03-18), will support the integration of current collaboration tools including tactical "chat" (text) communications, real-time tasking, and Air Tasking Order distribution. Recent real world operations have demonstrated a migration of Command and Control communications from voice to Internet protocol based networks.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

SIPR CHAT system development and design began in FY14. Flight Test to occur FY19. Procurement of kits will begin in FY19.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 9 / 003-18 E-2 SIPR CHAT			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs: 0604234N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> 003-18 E-2 SIPR CHAT													
A Kits													
Recurring													
1.1.1) E-2 SIPR CHAT - NonOrganic ⁽⁹⁾	- / -	- / -	5 / 0.700	17 / 2.424	- / -	17 / 2.424	17 / 2.470	13 / 1.925	- / -	- / -	- / -	52 / 7.519	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 0.700	- / 2.424	- / -	- / 2.424	- / 2.470	- / 1.925	- / -	- / -	- / 0.000	- / 7.519	
B Kits													
Recurring													
2.1.1) E-2 SIPR CHAT - Organic	- / -	- / -	5 / 0.061	17 / 0.212	- / -	17 / 0.212	17 / 0.216	13 / 0.168	- / -	- / -	- / -	52 / 0.657	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 0.061	- / 0.212	- / -	- / 0.212	- / 0.216	- / 0.168	- / -	- / -	- / 0.000	- / 0.657	
<i>Subtotal: 003-18 E-2 SIPR CHAT</i>	- / -	- / -	10 / 0.761	34 / 2.636	- / -	34 / 2.636	34 / 2.686	26 / 2.093	- / -	- / -	- / -	104 / 8.176	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 0.761	- / 2.636	- / -	- / 2.636	- / 2.686	- / 2.093	- / -	- / -	- / 0.000	- / 8.176	
Support (All Modification Items)													
3.1) Data ⁽¹⁰⁾	- / -	- / -	- / -	- / 0.344	- / -	- / 0.344	- / 0.170	- / -	- / -	- / -	- / -	- / 0.514	
3.2) ILS	- / -	- / -	- / 0.194	- / 0.207	- / -	- / 0.207	- / 0.262	- / 0.301	- / 0.307	- / -	- / -	- / 1.271	
3.3) Training Equipment ⁽¹¹⁾	- / -	- / -	- / -	- / 3.547	- / -	- / 3.547	- / 0.661	- / 0.270	- / -	- / -	- / -	- / 4.478	
3.4) Support Equipment ⁽¹²⁾	- / -	- / -	- / -	- / 0.350	- / -	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / 0.350	
3.5) Other Support	- / -	- / -	- / 1.030	- / 1.285	- / -	- / 1.285	- / 1.308	- / 1.334	- / 1.042	- / -	- / -	- / 5.999	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 1.224	- / 5.733	- / -	- / 5.733	- / 2.401	- / 1.905	- / 1.349	- / -	- / 0.000	- / 12.612	
Installation													
<i>Modification Item 1 of 1:</i> 003-18 E-2 SIPR CHAT	- / 0.000	- / 0.000	- / 0.000	- / 0.507	- / 0.000	- / 0.507	- / 1.761	- / 1.796	- / 1.399	- / 0.000	- / 0.000	- / 5.463	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.507	- / -	- / 0.507	- / 1.761	- / 1.796	- / 1.399	- / -	- / 0.000	- / 5.463	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	1.985	8.876	0.000	8.876	6.848	5.794	2.748	0.000	0.000	26.251	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 9 / 003-18 E-2 SIPR CHAT																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Modification Item 1 of 1: 003-18 E-2 SIPR CHAT																															
Manufacturer Information																															
Manufacturer Name: TBD										Manufacturer Location: Field Mod Team																					
Administrative Leadtime (in Months): 6										Production Leadtime (in Months): 12																					
Dates	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates					Mar 2019				Mar 2020				Mar 2021				Mar 2022														
Delivery Dates					Mar 2020				Mar 2021				Mar 2022				Mar 2023														
Installation Information																															
Method of Implementation: FIELD MOD TEAM:: Installation Name: E-2 SIPR CHAT																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	5 / 0.507	0 / 0.000	5 / 0.507	- / -	- / -	- / -	- / -	0 / 0.000	5 / 0.507																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	17 / 1.761	- / -	- / -	- / -	0 / 0.000	17 / 1.761																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 1.796	- / -	- / -	0 / 0.000	17 / 1.796																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.399	- / -	0 / 0.000	13 / 1.399																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	5 / 0.507	0 / 0.000	5 / 0.507	17 / 1.761	17 / 1.796	13 / 1.399	- / -	0 / 0.000	52 / 5.463																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	-	5	6	6	-	5	6	6	-	4	4	5	-	-	-	-	-	52
Out	-	-	-	-	-	-	-	-	-	-	1	2	2	-	5	6	6	-	5	6	6	-	4	4	5	-	-	-	-	-	52
Method of Implementation (Organic): E-2 SIPR CHAT - Not Installed																		Installation Quantity: 52													
Footnotes: ⁽⁹⁾ SIPR CHAT is planned to cut into the production line at aircraft 53.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 9 / 003-18 E-2 SIPR CHAT
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(10) FY 2020 Data costs are required for procurement and distribution of SIPR CHAT publications/technical directives. (11) FY 2020-FY 2022 Training requirements: Integration and verification of SIPR CHAT capability into aircrew and maintenance training devices and updates to applicable software. (12) FY 2020 Support Equipment (SE) requirements: Peculiar SE required to support SIPR CHAT Kit Procurements.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 10 / 007-18 Crypto Modernization

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	2.000	2.641	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.641
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	2.000	2.641	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.641
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	2.000	2.641	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.641
(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:

Funding will be used to integrate and field the Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) with Concurrent Multi-Netting 4. This capability will integrate the current E-2D Link -16 data link architecture with Crypto Modernization and Frequency Remapping with Concurrent Contention Receive and Concurrent Multi-Netting.

FY 2020 and out requirements and associated funding have been realigned under OSIP 018-20 Datalinks.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 10 / 007-18 Crypto Modernization			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancement				Related RDT&E PEs: 0604234N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1:</i> 007-18 Crypto Modernization													
A Kits													
Recurring													
1.1.1) CMN-4 Cabling - Organic ⁽¹³⁾													
	- / -	- / -	5 / 0.478	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.478	
<i>Subtotal: Recurring</i>													
	- / 0.000	- / -	- / 0.478	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.478	
B Kits													
Recurring													
2.1.1) MIDS/JTRS with CMN-4 Radio and Amplifier - Organic													
	- / -	- / -	5 / 0.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.854	
<i>Subtotal: Recurring</i>													
	- / 0.000	- / -	- / 0.854	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.854	
<i>Subtotal: 007-18 Crypto Modernization</i>													
	- / -	- / -	10 / 1.332	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.332	
<i>Subtotal: Procurement, All Modification Items</i>													
	- / 0.000	- / -	- / 1.332	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.332	
Support (All Modification Items)													
3.1) Data													
	- / -	- / -	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.100	
3.2) ILS													
	- / -	- / -	- / 0.065	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.065	
3.3) Training Equipment													
	- / -	- / -	- / 0.463	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.463	
3.5) Other Support													
	- / -	- / 2.000	- / 0.681	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.681	
<i>Subtotal: Support</i>													
	- / 0.000	- / 2.000	- / 1.309	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.309	
Installation													
<i>Subtotal: Installation</i>													
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)													
	0.000	2.000	2.641	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.641	

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Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0544 / E-2 Series			Modification Number / Title: 10 / 007-18 Crypto Modernization	
ID Code (A=Service Ready, B=Not Service Ready) :					MDAP/MAIS Code:		
Modification Item 1 of 1: 007-18 Crypto Modernization							
Manufacturer Information							
Manufacturer Name: TBD					Manufacturer Location: Field Mod Team		
Administrative Leadtime <i>(in Months)</i> : 6					Production Leadtime <i>(in Months)</i> : 12		
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates		Mar 2019					
Delivery Dates		Mar 2020					

Footnotes:

⁽¹³⁾ Kits procured in FY 2019 will be installed under OSIP 018-20 Datalinks.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 11 / 011-19 Navigational Warfare (NAVWAR)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.985	0.000	6.985	15.774	16.302	16.659	10.421	4.405	70.546
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.985	0.000	6.985	15.774	16.302	16.659	10.421	4.405	70.546
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.985	0.000	6.985	15.774	16.302	16.659	10.421	4.405	70.546
<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: Procurement of kits and installs to provide a Navigation Warfare (NAVWAR) capability including the integration of the Advanced Digital Antenna Production (ADAP) Controlled Reception Pattern Antenna (CRPA) and Antenna Electronics. NAVWAR capability allows the E-2D AHE to operate in areas where signal disruption would prohibit unprotected Global Positioning System (GPS) reception. The aircraft will be able to provide continuous operations in a degraded GPS environment for mission areas that depend on GPS for precise position, navigation, and timing. OSIP also provides Naval platforms improved access to Global Positioning System signals in challenged and jamming environments. Modernized GPS receivers to utilize the new M-Code GPS Signal in Space, incorporate enhanced cryptology, deliver greater position and time accuracy, provide improved protection against signal spoofing as compared to legacy Selective Anti-Jam Anti-Spoof Module (SAASM) receivers and to replace an obsolescence issue. Additionally, GPS Modernization delivers increased GPS anti-jam protection and enables blue force GPS electronic attack. Plays a pivotal role in Anti-Access Area Denial (A2AD) fight. Integrates hardware currently under development by the Air Force and integrates it into Naval ships, submarines, aircraft, weapons systems, and GPS enabled systems imbedded on those platforms. Enables compliance with Public Law 111-383 and Office of the Secretary of Defense Oversight Council guidance.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 11 / 011-19 Navigational Warfare (NAVWAR)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancements				Related RDT&E PEs: 0604777N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 011-19 Navigational Warfare (NAVWAR)													
A Kits													
Recurring													
1.1.1) NAVWAR A-Kit - NonOrganic	- / -	- / -	- / -	10 / 0.026	- / -	10 / 0.026	10 / 0.027	10 / 0.027	9 / 0.025	10 / 0.028	- / -	49 / 0.133	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 0.026	- / -	- / 0.026	- / 0.027	- / 0.027	- / 0.025	- / 0.028	- / 0.000	- / 0.133	
B Kits													
Recurring													
2.1.1) NAVWAR B-Kit - Organic	- / -	- / -	- / -	10 / 1.821	- / -	10 / 1.821	10 / 1.860	10 / 1.897	9 / 1.756	10 / 1.808	- / -	49 / 9.142	
2.1.2) GPS Modernization B-Kits - NonOrganic ⁽¹⁴⁾	- / -	- / -	- / -	5 / 1.514	- / -	5 / 1.514	20 / 6.176	20 / 6.300	16 / 6.641	- / -	- / -	61 / 20.631	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 3.335	- / -	- / 3.335	- / 8.036	- / 8.197	- / 8.397	- / 1.808	- / 0.000	- / 29.773	
Subtotal: 011-19 Navigational Warfare (NAVWAR)	- / -	- / -	- / -	25 / 3.361	- / -	25 / 3.361	40 / 8.063	40 / 8.224	34 / 8.422	20 / 1.836	- / -	159 / 29.906	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / 3.361	- / -	- / 3.361	- / 8.063	- / 8.224	- / 8.422	- / 1.836	- / 0.000	- / 29.906	
Support (All Modification Items)													
3.2) ILS ⁽¹⁵⁾	- / -	- / -	- / -	- / 0.090	- / -	- / 0.090	- / 1.786	- / 1.821	- / 1.855	- / 1.839	- / -	- / 17.391	
3.3) Training Equipment ⁽¹⁶⁾	- / -	- / -	- / -	- / 1.292	- / -	- / 1.292	- / 0.297	- / -	- / -	- / -	- / -	- / 1.589	
3.4) Support Equipment	- / -	- / -	- / -	- / 0.412	- / -	- / 0.412	- / -	- / -	- / -	- / -	- / -	- / 0.412	
3.5) Other Support ⁽¹⁷⁾	- / -	- / -	- / -	- / 1.830	- / -	- / 1.830	- / 2.632	- / 2.657	- / 2.709	- / 2.709	- / 1.354	- / 13.891	
Subtotal: Support	- / 0.000	- / -	- / -	- / 3.624	- / -	- / 3.624	- / 4.715	- / 4.478	- / 4.564	- / 4.548	- / 1.354	- / 23.283	
Installation													
Modification Item 1 of 1: 011-19 Navigational Warfare (NAVWAR)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.996	- / 3.600	- / 3.673	- / 4.037	- / 3.051	- / 17.357	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 2.996	- / 3.600	- / 3.673	- / 4.037	- / 3.051	- / 17.357	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	6.985	0.000	6.985	15.774	16.302	16.659	10.421	4.405	70.546	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 11 / 011-19 Navigational Warfare (NAVWAR)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Modification Item 1 of 1: 011-19 Navigational Warfare (NAVWAR)												
Manufacturer Information												
Manufacturer Name: NAVWAR Installs						Manufacturer Location: Field Mod Team						
Administrative Leadtime (in Months): 6						Production Leadtime (in Months): 10						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Mar 2020	Mar 2021	Mar 2022	Mar 2023						
Delivery Dates			Jan 2021	Jan 2022	Jan 2023	Jan 2024						
Manufacturer Name: GPS Modernization						Manufacturer Location: Field Mod Team						
Administrative Leadtime (in Months): 6						Production Leadtime (in Months): 9						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Mar 2020	Mar 2021	Mar 2022							
Delivery Dates			Dec 2020	Dec 2021	Dec 2022							
Installation Information												
Method of Implementation: Field Mod Team:: Installation Name: NAVWAR A-Kit												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.818	- / -	- / -	- / -	0 / 0.000	10 / 2.818
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.874	- / -	- / -	0 / 0.000	10 / 2.874
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.932	- / -	0 / 0.000	10 / 2.932
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.691	0 / 0.000	9 / 2.691
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.051	10 / 3.051
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.818	10 / 2.874	10 / 2.932	9 / 2.691	10 / 3.051	49 / 14.366

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Exhibit P-3a, Individual Modification: PB 2020 Navy																							Date: March 2019								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0544 / E-2 Series											Modification Number / Title: 11 / 011-19 Navigational Warfare (NAVWAR)									
ID Code (A=Service Ready, B=Not Service Ready) :																	MDAP/MAIS Code:														
Modification Item 1 of 1: 011-19 Navigational Warfare (NAVWAR)																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: NAVWAR A-Kit																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	4	-	3	3	4	-	3	3	4	-	3	3	3	10	49
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	4	-	3	3	4	-	3	3	4	-	3	3	3	10	49
Method of Implementation: Field Mod Team:: Installation Name: GPS Modernization B-Kits																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.178	- / -	- / -	- / -	0 / 0.000	5 / 0.178																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.726	- / -	- / -	0 / 0.000	20 / 0.726																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.741	- / -	0 / 0.000	20 / 0.741																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.346	0 / 0.000	16 / 1.346																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.178	20 / 0.726	20 / 0.741	16 / 1.346	0 / 0.000	61 / 2.991																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	10	10	-	-	10	10	-	-	6	10	-	-	-	61
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	10	10	-	-	10	10	-	-	6	10	-	-	-	61
Method of Implementation (Organic): NAVWAR B-Kit - Not Installed																															
Installation Quantity: 49																															
Footnotes:																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 11 / 011-19 Navigational Warfare (NAVWAR)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(14) Two (2) Global Positioning System boxes per aircraft (15) FY 2021 increase to ILS due to GPS Modernization efforts. (16) FY 2020 increase to Training Equipment due to integration and verification of NAVWAR and GPS Modernization capabilities into aircrew and maintenance training devices. (17) FY 2020 increase in Other Support due to GPS Modernization efforts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 12 / 003-20 Advanced Radar Processor		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	11.685	21.738	0.000	21.738	26.146	65.136	49.563	24.422	4.083	202.773
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	11.685	21.738	0.000	21.738	26.146	65.136	49.563	24.422	4.083	202.773
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	11.685	21.738	0.000	21.738	26.146	65.136	49.563	24.422	4.083	202.773
<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: E-2D Advanced Radar Processor (ARP) is an essential upgrade to the E-2D APY-9 Radar system that improves the radar processing capability six fold, reduces production costs, addresses obsolescence, reduces future support costs and enables future growth by reducing the number of Subsystem Replaceable Assembly's in the processors. ARP is required to support the transition of current Science & Technology investments in Naval Integrated Fire Control-Counter Air (NIFC-CA) (Increment 3), Counter Electronic Attack and Sensor Netting. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Procurement of retrofit kits will begin in FY 2019.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 12 / 003-20 Advanced Radar Processor			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2				Modification Type: Mission Performance Enhancement				Related RDT&E PEs: 0604234N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 003-20 Advanced Radar Processor													
B Kits													
Recurring													
2.1.1) ARP B-Kit - NonOrganic	- / -	- / -	2 / 7.800	4 / 15.896	- / -	4 / 15.896	5 / 20.248	14 / 57.772	9 / 42.370	4 / 19.208	- / -	38 / 163.294	
Subtotal: Recurring	- / 0.000	- / -	- / 7.800	- / 15.896	- / -	- / 15.896	- / 20.248	- / 57.772	- / 42.370	- / 19.208	- / 0.000	- / 163.294	
Subtotal: 003-20 Advanced Radar Processor	- / -	- / -	2 / 7.800	4 / 15.896	- / -	4 / 15.896	5 / 20.248	14 / 57.772	9 / 42.370	4 / 19.208	- / -	38 / 163.294	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / 7.800	- / 15.896	- / -	- / 15.896	- / 20.248	- / 57.772	- / 42.370	- / 19.208	- / 0.000	- / 163.294	
Support (All Modification Items)													
3.1) Data	- / -	- / -	- / 0.275	- / 0.280	- / -	- / 0.280	- / 0.286	- / 2.152	- / 2.004	- / -	- / -	- / 4.997	
3.2) ILS	- / -	- / -	- / 1.500	- / 1.530	- / -	- / 1.530	- / 1.560	- / 1.591	- / 1.628	- / 1.747	- / 2.289	- / 11.845	
3.3) Training Equipment	- / -	- / -	- / -	- / 1.135	- / -	- / 1.135	- / 0.247	- / -	- / -	- / -	- / -	- / 1.382	
3.4) Support Equipment	- / -	- / -	- / 0.237	- / 0.986	- / -	- / 0.986	- / 1.730	- / 1.472	- / 1.073	- / 1.095	- / -	- / 6.593	
3.5) Other Support	- / -	- / -	- / 1.873	- / 1.849	- / -	- / 1.849	- / 1.949	- / 1.988	- / 2.027	- / 2.069	- / 1.657	- / 13.412	
Subtotal: Support	- / 0.000	- / -	- / 3.885	- / 5.780	- / -	- / 5.780	- / 5.772	- / 7.203	- / 6.732	- / 4.911	- / 3.946	- / 38.229	
Installation													
Modification Item 1 of 1: 003-20 Advanced Radar Processor	- / 0.000	- / 0.000	- / 0.000	- / 0.062	- / 0.000	- / 0.062	- / 0.126	- / 0.161	- / 0.461	- / 0.303	- / 0.137	- / 1.250	
Subtotal: Installation	- / 0.000	- / -	- / -	- / 0.062	- / -	- / 0.062	- / 0.126	- / 0.161	- / 0.461	- / 0.303	- / 0.137	- / 1.250	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	11.685	21.738	0.000	21.738	26.146	65.136	49.563	24.422	4.083	202.773	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0544 / E-2 Series											Modification Number / Title: 12 / 003-20 Advanced Radar Processor										
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:																
Modification Item 1 of 1: 003-20 Advanced Radar Processor																																
Manufacturer Information																																
Manufacturer Name: TBD														Manufacturer Location: Field Mod Team																		
Administrative Leadtime (in Months): 3														Production Leadtime (in Months): 12																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024						
Delivery Dates						Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024				Jan 2025						
Installation Information																																
Method of Implementation: Field Mod Team:: Installation Name: ARP B-Kit																																
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -									
FY 2019		- / -	- / -		- / -		2 / 0.062		0 / 0.000		2 / 0.062		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.062									
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		4 / 0.126		- / -		- / -		- / -		0 / 0.000		4 / 0.126									
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.161		- / -		- / -		0 / 0.000		5 / 0.161									
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.461		- / -		0 / 0.000		14 / 0.461									
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 0.303		0 / 0.000		9 / 0.303									
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.137		4 / 0.137									
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -									
Total		- / -	- / -		- / -		2 / 0.062		0 / 0.000		2 / 0.062		4 / 0.126		5 / 0.161		14 / 0.461		9 / 0.303		4 / 0.137		38 / 1.250									
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	1	2	2	-	4	5	5	-	3	3	3	4	38	
Out	-	-	-	-	-	-	-	-	-	-	2	-	-	-	1	1	2	-	1	2	2	-	4	5	5	-	3	3	3	4	38	

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 13 / 016-20 Technology Upgrades			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.260	0.000	4.260	5.043	4.362	4.162	32.723	181.146	231.696
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.260	0.000	4.260	5.043	4.362	4.162	32.723	181.146	231.696
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.260	0.000	4.260	5.043	4.362	4.162	32.723	181.146	231.696
<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:

E-2 Technology Upgrades OSIP was established to ensure fleet configuration management and address deficiencies and obsolescence of hardware and software systems. The E-2 platform is technology dependent and Commercial-Off-The-Shelf (COTS) intensive, leaving it vulnerable to industry component lifecycle trends which are typically 3-5 years. Systems such as Mission Computer and Displays (MCD), Electronic Support Measures (ESM), Integrated Navigation Control Display System (INCDS), Intercommunication System (ICS), and On-Board Oxygen Generation System (OBOGS) will need to be refreshed in order to ensure fleet readiness and sustainment. The Technology Upgrades OSIP will execute a strategic, comprehensive plan to mitigate component level end of production and end of support due to deficiencies and obsolescence on all E-2 aircraft and trainers.

This OSIP includes efforts started under OSIP 005-01 Technology Insertion.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 13 / 016-20 Technology Upgrades				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-2 Series			Modification Type: Mission Performance Enhancement					Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 016-20 Technology Upgrades												
B Kits												
Recurring												
2.1.1) E-2C Tactical 4th Operator Mod Kits - Organic ⁽¹⁸⁾	- / -	- / -	- / -	15 / 0.750	- / -	15 / 0.750	15 / 0.764	- / -	- / -	- / -	- / -	30 / 1.514
2.1.2) E2C B-Kits 1 - Organic	- / -	- / -	- / -	25 / 0.976	- / -	25 / 0.976	- / -	- / -	- / -	- / -	- / -	25 / 0.976
2.1.3) E2D B-Kits 1 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	45 / 1.789	- / -	- / -	- / -	- / -	45 / 1.789
2.1.4) E2D B-Kits 2 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 1.823	- / -	- / -	- / -	45 / 1.823
2.1.5) E2C B-Kits 3 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 1.860	- / -	- / -	45 / 1.860
2.1.6) E2D B-Kits 4 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 2.106	50 / 2.146	100 / 4.252
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 1.726	- / -	- / 1.726	- / 2.553	- / 1.823	- / 1.860	- / 2.106	- / 2.146	- / 12.214
Non-Recurring												
2.2.1) Installation Equip N/R - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.430	- / 135.000	- / 163.430
Subtotal: Non-Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.430	- / 135.000	- / 163.430
Subtotal: 016-20 Technology Upgrades	- / -	- / -	- / -	40 / 1.726	- / -	40 / 1.726	60 / 2.553	45 / 1.823	45 / 1.860	50 / 30.536	50 / 137.146	290 / 175.644
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / 1.726	- / -	- / 1.726	- / 2.553	- / 1.823	- / 1.860	- / 30.536	- / 137.146	- / 175.644
Support (All Modification Items)												
3.1) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.000	- / 6.000
3.2) ILS	- / -	- / -	- / -	- / 0.640	- / -	- / 0.640	- / 0.654	- / 0.667	- / 0.599	- / 0.569	- / 3.000	- / 6.129
3.3) Software Upgrades	- / -	- / -	- / -	- / 0.210	- / -	- / 0.210	- / 0.235	- / 0.240	- / 0.181	- / 0.172	- / 15.000	- / 16.038
3.4) Training Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.000	- / 10.000
3.5) Support Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.000	- / 5.000
3.6) Other Support	- / -	- / -	- / -	- / 1.684	- / -	- / 1.684	- / 1.601	- / 1.632	- / 1.522	- / 1.446	- / 5.000	- / 12.885
Subtotal: Support	- / 0.000	- / -	- / -	- / 2.534	- / -	- / 2.534	- / 2.490	- / 2.539	- / 2.302	- / 2.187	- / 44.000	- / 56.052
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	4.260	0.000	4.260	5.043	4.362	4.162	32.723	181.146	231.696

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 13 / 016-20 Technology Upgrades
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: 016-20 Technology Upgrades		
Footnotes: (18) Efforts and funding in FY 2020 and out were originally identified in OSIP 005-01 Technology Insertion.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 14 / 018-20 Datalinks

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	18.808	0.000	18.808	38.673	34.933	30.434	7.885	0.000	130.733
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	18.808	0.000	18.808	38.673	34.933	30.434	7.885	0.000	130.733
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	18.808	0.000	18.808	38.673	34.933	30.434	7.885	0.000	130.733
<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:

Addresses Crypto Modernization (CM) upgrades and Frequency Remapping (FR) capabilities as mandated by the National Security Agency (NSA), the Department of Transportation (DoT) and the Department of Defense (DoD). This OSIP will field the LINK 16 CM/FR capability with the integration of the Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) with Concurrent Multi-Netting 4 (CMN-4) into the E-2 and supports the software effort to integrate application standards into the mission computer and displays. The CMN-4 capability integrates the current E-2 LINK 16 data link architecture with CM and FR with Concurrent Contention Receive and Concurrent Multi-Netting to comply with CM mandate.

Funding will also be used to integrate and field the MIDS JTRS Tactical Targeting Network Technology (TTNT) wave form. The TTNT capability integrates the current E-2 LINK 16 data link architecture with a time sensitive targeting technology in support of the Naval Integrated Fire Control concept for fleet air and missile defense.

This OSIP combines previous OSIPs 001-17 LINK 16, 001-18 E-2 MIDS/JTRS TTNT, and current OSIP 007-18 Crypto Modernization in FY 2020 and out.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 14 / 018-20 Datalinks			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2 Series				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 018-20 Datalinks													
A Kits													
Recurring													
1.1.1) E-2C Crypto Mod A-Kit - Organic ⁽¹⁹⁾	- / -	- / -	- / -	11 / 0.619	- / -	11 / 0.619	9 / 0.516	- / -	- / -	- / -	- / -	20 / 1.135	
1.1.2) E-2D Crypto Mod A-Kit - NonOrganic ⁽²⁰⁾	- / -	- / -	5 / 0.000	17 / 1.655	- / -	17 / 1.655	13 / 1.292	- / -	- / -	- / -	- / -	35 / 2.947	
1.1.3) E-2 MIDS/JTRS TTNT - NonOrganic	- / -	- / -	- / -	3 / 1.003	- / -	3 / 1.003	17 / 5.797	17 / 5.913	15 / 5.322	- / -	- / -	52 / 18.035	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 3.277	- / -	- / 3.277	- / 7.605	- / 5.913	- / 5.322	- / -	- / 0.000	- / 22.117	
B Kits													
Recurring													
2.1.1) E-2C Crypto Mod B-Kit - Organic	- / -	- / -	- / -	11 / 1.750	- / -	11 / 1.750	9 / 1.460	- / -	- / -	- / -	- / -	20 / 3.210	
2.1.2) E-2D Crypto Mod B-Kit - Organic ⁽²¹⁾	- / -	- / -	5 / 0.000	17 / 2.955	- / -	17 / 2.955	13 / 2.307	- / -	- / -	- / -	- / -	35 / 5.262	
2.1.3) E-2 MIDS/JTRS TTNT - Organic	- / -	- / -	- / -	3 / 3.119	- / -	3 / 3.119	17 / 18.028	17 / 18.388	15 / 16.550	- / -	- / -	52 / 56.085	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 7.824	- / -	- / 7.824	- / 21.795	- / 18.388	- / 16.550	- / -	- / 0.000	- / 64.557	
Subtotal: 018-20 Datalinks	- / -	- / -	10 / 0.000	62 / 11.101	- / -	62 / 11.101	78 / 29.400	34 / 24.301	30 / 21.872	- / -	- / -	214 / 86.674	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / 11.101	- / -	- / 11.101	- / 29.400	- / 24.301	- / 21.872	- / -	- / 0.000	- / 86.674	
Support (All Modification Items)													
3.1) Data	- / -	- / -	- / -	- / 0.422	- / -	- / 0.422	- / 0.191	- / 0.102	- / -	- / -	- / -	- / 0.715	
3.2) ILS	- / -	- / -	- / -	- / 0.365	- / -	- / 0.365	- / 0.824	- / 0.732	- / 0.629	- / 0.642	- / -	- / 3.192	
3.3) Training Equipment	- / -	- / -	- / -	- / 4.099	- / -	- / 4.099	- / 1.541	- / -	- / -	- / -	- / -	- / 5.640	
3.4) Support Equipment	- / -	- / -	- / -	- / 0.063	- / -	- / 0.063	- / 0.755	- / -	- / -	- / -	- / -	- / 0.818	
3.5) Other Support	- / -	- / -	- / -	- / 2.258	- / -	- / 2.258	- / 3.045	- / 1.536	- / 0.859	- / 0.876	- / -	- / 8.574	
Subtotal: Support	- / 0.000	- / -	- / -	- / 7.207	- / -	- / 7.207	- / 6.356	- / 2.370	- / 1.488	- / 1.518	- / 0.000	- / 18.939	
Installation													
Modification Item 1 of 1: 018-20 Datalinks	- / 0.000	- / 0.000	- / 0.000	- / 0.500	- / 0.000	- / 0.500	- / 2.917	- / 8.262	- / 7.074	- / 6.367	- / 0.000	- / 25.120	
Subtotal: Installation	- / 0.000	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 2.917	- / 8.262	- / 7.074	- / 6.367	- / 0.000	- / 25.120	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	18.808	0.000	18.808	38.673	34.933	30.434	7.885	0.000	130.733	

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 14 / 018-20 Datalinks				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: 018-20 Datalinks												
Manufacturer Information												
Manufacturer Name: E-2D Crypto Mod ⁽²²⁾							Manufacturer Location: Field Mod Team					
Administrative Leadtime <i>(in Months)</i> : 6							Production Leadtime <i>(in Months)</i> : 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Mar 2020	Mar 2021								
Delivery Dates			Mar 2021	Mar 2022								
Manufacturer Name: E-2 MIDS/JTRS TTNT							Manufacturer Location: Field Mod Team					
Administrative Leadtime <i>(in Months)</i> : 6							Production Leadtime <i>(in Months)</i> : 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates			Mar 2020	Mar 2021	Mar 2022	Mar 2023	Mar 2024					
Delivery Dates			Mar 2021	Mar 2022	Mar 2023	Mar 2024	Mar 2025					
Installation Information												
Method of Implementation: Field Mod Team:: Installation Name: E-2D Crypto Mod A-Kit												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	5 / 0.500	0 / 0.000	5 / 0.500	- / -	- / -	- / -	- / -	0 / 0.000	5 / 0.500
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	17 / 1.717	- / -	- / -	- / -	0 / 0.000	17 / 1.717
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.326	- / -	- / -	0 / 0.000	13 / 1.326
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	5 / 0.500	0 / 0.000	5 / 0.500	17 / 1.717	13 / 1.326	- / -	- / -	0 / 0.000	35 / 3.543

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Exhibit P-3a, Individual Modification: PB 2020 Navy																								Date: March 2019							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1												P-1 Line Item Number / Title: 0544 / E-2 Series												Modification Number / Title: 14 / 018-20 Datalinks							
ID Code (A=Service Ready, B=Not Service Ready) :																		MDAP/MAIS Code:													
Modification Item 1 of 1: 018-20 Datalinks																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: E-2D Crypto Mod A-Kit																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	1	2	2	-	5	5	7	-	4	4	5	-	-	-	-	-	-	-	-	35	
Out	-	-	-	-	-	-	-	-	-	-	1	2	2	-	5	5	7	-	4	4	5	-	-	-	-	-	-	-	-	35	
Method of Implementation: Field Mod Team:: Installation Name: E-2 MIDS/JTRS TTNT																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 1.200		- / -		- / -		- / -		0 / 0.000		3 / 1.200					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		17 / 6.936		- / -		- / -		0 / 0.000		17 / 6.936					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		17 / 7.074		- / -		0 / 0.000		17 / 7.074					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 6.367		0 / 0.000		15 / 6.367					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 1.200		17 / 6.936		17 / 7.074		15 / 6.367		0 / 0.000		52 / 21.577					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	5	6	6	-	5	6	6	-	5	5	5	-	52
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	5	6	6	-	5	6	6	-	5	5	5	-	52
Method of Implementation (Organic): E-2C Crypto Mod A-Kit																															
																								Installation Quantity: 20							
Method of Implementation (Organic): E-2C Crypto Mod B-Kit - Not Installed																															
																								Installation Quantity: 20							

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 14 / 018-20 Datalinks
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: 018-20 Datalinks		
Installation Information		
Method of Implementation (Organic): E-2D Crypto Mod B-Kit - Not Installed		Installation Quantity: 35
Method of Implementation (Organic): E-2 MIDS/JTRS TTNT - Not Installed		Installation Quantity: 52
Footnotes: (19) E-2C Crypto Mod kits will be installed at the Operational Level (20) E-2D Crypto Mod A-Kits procured in FY 2019 were procured and funded under OSIP 07-18 Crypto Modernization. (21) E-2D Crypto Mod B-Kits procured in FY 2019 were procured and funded under OSIP 07-18 Crypto Modernization. (22) E-2D Crypto Mod kits installing in FY 2020 were procured under OSIP 07-18 Crypto Modernization		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series				Modification Number / Title: 15 / 007-21 Electronic Support Measures			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	34.949	34.008	35.084	55.508	113.540	273.089
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	34.949	34.008	35.084	55.508	113.540	273.089
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	34.949	34.008	35.084	55.508	113.540	273.089
<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:

E-2D Electronic Support Measures (ESM) Combat Identification (CID) upgrade integrates digital receiver and processing technology, enables E-2 multi-ship geo-location and Time Difference of Arrival (TDOA) with other sensors across Link-16 and Tactical Targeting Network Technology (TTNT), and provides a precision internal clock source to enable netted detection of advanced threat radar systems. Connectivity to Electronic Warfare (EW) netted sensors will provide multiple node, real-time, enhanced CID capabilities. The digital upgrade greatly enhances CID and battlespace awareness, and improve effectiveness of blue forces. Survivability capability is required to ensure the E-2D can perform its intended mission at locations required to support Naval and Joint Force Operations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

The Preliminary Design Review will be completed in 4th QTR of FY19. Procurement of kits will begin in FY21.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 15 / 007-21 Electronic Support Measures			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancement				Related RDT&E PEs: 0604234N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Electronic Support Measures - NonOrganic <i>Installation 1 of 2</i>	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.617	12 / 1.649	12 / 1.682	12 / 1.714	- / -	48 / 6.662	
1.1.2) Survivability A-Kit - NonOrganic <i>Installation 2 of 2</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.119	63 / 0.823	73 / 0.942	
2.1.1) Electronic Support Measures - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	12 / 16.745	12 / 17.064	12 / 17.576	12 / 17.910	- / -	48 / 69.295	
2.1.2) Survivability B-Kit - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 14.768	63 / 67.382	73 / 82.150	
<i>Subtotal: Procurement</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 18.362</i>	<i>- / 18.713</i>	<i>- / 19.258</i>	<i>- / 34.511</i>	<i>- / 68.205</i>	<i>- / 159.049</i>	
Support													
3.1) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.369	- / 1.396	- / 1.423	- / 1.448	- / 0.986	- / 6.622	
3.2) ILS	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.416	- / 6.538	- / 6.669	- / 6.771	- / 3.545	- / 29.939	
3.3) Training Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.000	- / 2.000	- / 2.265	- / 7.310	- / -	- / 15.575	
3.4) Support Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.940	- / 2.000	- / 2.040	- / 1.871	- / 1.909	- / 9.760	
3.5) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.862	- / 2.916	- / 2.975	- / 3.097	- / 3.259	- / 15.109	
<i>Subtotal: Support</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 16.587</i>	<i>- / 14.850</i>	<i>- / 15.372</i>	<i>- / 20.497</i>	<i>- / 9.699</i>	<i>- / 77.005</i>	
Installation													
<i>Installation 1 of 2:</i> Electronic Support Measures	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.445	- / 0.454	- / 0.500	- / 0.551	- / 1.950	
<i>Installation 2 of 2:</i> Survivability A-Kit	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.085	- / 35.085	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.445</i>	<i>- / 0.454</i>	<i>- / 0.500</i>	<i>- / 35.636</i>	<i>- / 37.035</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	34.949	34.008	35.084	55.508	113.540	273.089	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 15 / 007-21 Electronic Support Measures											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: Electronic Support Measures																															
Manufacturer Information																															
Manufacturer Name: Electronic Support Measures															Manufacturer Location: Field Mod Team																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 10																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates														Jan 2022				Jan 2023				Jan 2024				Jan 2025					
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Electronic Support Measures																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.445		- / -		- / -		0 / 0.000		12 / 0.445								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.454		- / -		0 / 0.000		12 / 0.454								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.500		0 / 0.000		12 / 0.500								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.551		12 / 0.551								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.445		12 / 0.454		12 / 0.500		12 / 0.551		48 / 1.950								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	-	4	4	4	-	4	4	4	12	48
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	-	4	4	4	-	4	4	4	12	48

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 15 / 007-21 Electronic Support Measures											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: Survivability A-Kit																															
Manufacturer Information																															
Manufacturer Name: Survivability															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 10																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Mar 2024									
Delivery Dates																						Jan 2025									
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Survivability A-Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 4.634		10 / 4.634					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		63 / 30.451		63 / 30.451					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		73 / 35.085		73 / 35.085					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	73
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	73	73

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 16 / 008-21 Test Asset Viability

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	2.549	29.562	43.265	1.803	0.000	77.179
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	2.549	29.562	43.265	1.803	0.000	77.179
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	2.549	29.562	43.265	1.803	0.000	77.179
(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:

Test Asset Viability modifies two E-2D aircraft and the E-2 Systems Test and Evaluation Lab (ESTEL) with updated mission system components. This will provide production representative aircraft and laboratory along with mission system supportability and mandated anti-tamper requirements. This modification is essential to NIFC-CA and the fleet readiness of the E-2D.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 16 / 008-21 Test Asset Viability			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 008-21 Test Asset Viability													
A Kits													
Recurring													
1.1.1) Test Asset Viability A-Kit - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.707	- / -	- / -	- / -	1 / 7.707	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.707	- / -	- / -	- / 0.000	- / 7.707	
Non-Recurring													
1.2.1) Non-Recurring - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.431	- / -	- / -	- / -	- / -	- / 1.431	
Subtotal: Non-Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1.431	- / -	- / -	- / -	- / 0.000	- / 1.431	
B Kits													
Recurring													
2.1.1) Test Asset Viability B-Kit - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 18.714	2 / 38.769	- / -	- / -	3 / 57.483	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.714	- / 38.769	- / -	- / 0.000	- / 57.483	
Subtotal: 008-21 Test Asset Viability	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.431	2 / 26.421	2 / 38.769	- / -	- / -	4 / 66.621	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1.431	- / 26.421	- / 38.769	- / -	- / 0.000	- / 66.621	
Support (All Modification Items)													
3.1) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.836	- / 0.852	- / -	- / -	- / 1.688	
3.2) ILS	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.196	- / 1.160	- / 1.183	- / 0.237	- / -	- / 2.776	
3.3) Support Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.161	- / 0.449	- / -	- / 1.610	
3.4) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.922	- / 1.145	- / 1.168	- / 0.983	- / -	- / 4.218	
Subtotal: Support	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1.118	- / 3.141	- / 4.364	- / 1.669	- / 0.000	- / 10.292	
Installation													
Modification Item 1 of 1: 008-21 Test Asset Viability	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.132	- / 0.134	- / 0.000	- / 0.266	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.132	- / 0.134	- / 0.000	- / 0.266	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	2.549	29.562	43.265	1.803	0.000	77.179	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 16 / 008-21 Test Asset Viability											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 008-21 Test Asset Viability																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																		Mar 2022				Mar 2023									
Delivery Dates																		Mar 2023				Mar 2024									
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Test Asset Viability B-Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.132		- / -		0 / 0.000		1 / 0.132					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.134		0 / 0.000		2 / 0.134					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.132		2 / 0.134		0 / 0.000		3 / 0.266					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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
Method of Implementation (Organic): Test Asset Viability A-Kit - Not Installed																															
																				Installation Quantity: 1											

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0544 / E-2 Series	Modification Number / Title: 17 / 001-24 Counter Electronic Attack

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	0.000	0.000	0.000	64.685	305.355	370.040
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	64.685	305.355	370.040
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	0.000	0.000	0.000	64.685	305.355	370.040
(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:

E-2D Counter Electronic Attack (CEA) OSIP was established to improve the ability of the E-2D platform to detect and track targets in a dense Electronic Attack (EA) environment. Modifications to the radar processing architecture and software improvements will allow the radar to detect and track targets.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review will be completed 1st Qtr of FY21. Critical Design Review will be completed 4th Qtr FY21. Developmental Test and Evaluation will complete 4th Qtr FY23. Procurement of kits will begin in FY24.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series						Modification Number / Title: 17 / 001-24 Counter Electronic Attack			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: E-2D				Modification Type: Mission Performance Enhancements				Related RDT&E PEs: 0604234N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 001-24 Counter Electronic Attack													
B Kits													
Recurring													
2.1.1) CEA B-Kits - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 31.198	68 / 259.794	74 / 290.992	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.198	- / 259.794	- / 290.992	
Subtotal: 001-24 Counter Electronic Attack	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 31.198	68 / 259.794	74 / 290.992	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.198	- / 259.794	- / 290.992	
Support (All Modification Items)													
3.1) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.971	- / 3.200	- / 7.171	
3.2) ILS	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.975	- / 10.847	- / 11.822	
3.3) Training Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.580	- / -	- / 16.580	
3.4) Support Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.536	- / 6.667	- / 18.203	
3.5) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.425	- / 18.474	- / 18.899	
Subtotal: Support	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 33.487	- / 39.188	- / 72.675	
Installation													
Modification Item 1 of 1: 001-24 Counter Electronic Attack	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 6.373	- / 6.373	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.373	- / 6.373	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	64.685	305.355	370.040	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0544 / E-2 Series										Modification Number / Title: 17 / 001-24 Counter Electronic Attack											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 001-24 Counter Electronic Attack																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: Field Mod Team																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Mar 2024									
Delivery Dates																						Nov 2024									
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: CEA B-Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.481								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		68 / 5.892								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		74 / 6.373								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	74	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	74	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 18 / Inactive OSIPs				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-	
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,329.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,329.131	
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-	
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,329.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,329.131	
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-	
Total Obligation Authority (<i>\$ in Millions</i>)	1,329.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,329.131	
(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: Inactive OSIPs prior year totals.													

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0544 / E-2 Series					Modification Number / Title: 18 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) INACTIVE OSIPS - Organic ^(*)	- / 1,329.131	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,329.131	
Subtotal: Procurement	- / 1,329.131	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1,329.131	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	1,329.131	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,329.131	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0549 / Trainer Acft Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	235.902	8.101	11.660	5.616	0.000	5.616	24.973	26.223	26.916	27.589	-	366.980
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	235.902	8.101	11.660	5.616	0.000	5.616	24.973	26.223	26.916	27.589	-	366.980
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	235.902	8.101	11.660	5.616	0.000	5.616	24.973	26.223	26.916	27.589	-	366.980

(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 line item funds modifications to a group of trainer aircraft systems which includes the T-44 and TH-57, and US Navy Test Pilot School (USNTPS) aircraft.

The T-44 is a twin-engine, multi-seat turboprop aircraft produced by Hawker Beech Aircraft and is utilized to provide training for simulated operation of multi-engine training. Specifically, this aircraft provides pipeline training for the P-3, P-8, EP-3, KC-130, E-6, E-2, C-2, and MV-22. Current Navy inventory is 54 aircraft with service life thru 2025 with possible multiyear extensions.

The overall goal of modifications for T-44 is to modify and/or upgrade aircraft avionics and associated sub-systems to include upgrades to avionic systems for Federal Aviation Administration (FAA) compliance. Efforts also include, Avionics modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to avionic systems, may also be driven by new Cyber Security requirements.

The TH-57 is a single engine, multi-seat rotary wing aircraft utilized to provide rotary wing training. Current Navy TH-57 inventory is 115 aircraft with no documented service life remaining. The airframe and dynamic components can be sustained indefinitely (although at higher costs as time goes on).

The overall goal of modifications for TH-57 is implement safety updates as well as required upgrades to avionic systems for FAA compliance. Efforts also include, modifications to airframe, avionics, and sub-systems, necessary to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to avionic systems, may also be driven by new Cyber Security requirements.

Test Pilot School aircraft support training of test pilots, Naval Flight Officers (NFOs), and Test Engineers. TPS aircraft include ten T-38, five UH-72, five OH-58, two U-6, one U-1, two X-26 and one C-26. Efforts include modifications to airframe, avionics, and sub-systems, necessary to address safety, reliability, maintainability, obsolescence, capability, and Diminishing Manufacturing Source (DMSMS) requirements.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0549 / Trainer Acft Series				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE (Safety)				- / 124.162	- / 2.049	- / 1.551	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / OSIP 006-07 TH-57 SAFETY UPGRADE (Conversion/Safety)				- / 56.401	- / 6.052	- / 10.004	- / 5.616	- / 0.000	- / 5.616
P-3a	3 / OSIP 015-16 TPS Aircraft (Safety)				- / 2.295	- / 0.000	- / 0.105	- / 0.000	- / 0.000	- / 0.000
P-3a	4 / Inactive OSIPs (TBD)				- / 53.044	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 235.902	- / 8.101	- / 11.660	- / 5.616	- / 0.000	- / 5.616
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE (Safety)				- / 1.546	- / 1.533	- / 1.576	- / 1.616	- / 0.000	- / 134.033
P-3a	2 / OSIP 006-07 TH-57 SAFETY UPGRADE (Conversion/Safety)				- / 23.427	- / 24.690	- / 25.340	- / 25.973	- / 0.000	- / 177.503
P-3a	3 / OSIP 015-16 TPS Aircraft (Safety)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.400
P-3a	4 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 53.044
P-40	Total Gross/Weapon System Cost				- / 24.973	- / 26.223	- / 26.916	- / 27.589	- / -	- / 366.980
*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 submission incorporates corresponding schedule updates throughout the Future Years Defense Program modification efforts with a focus on maintaining ADS-B(Out) procurement and installation schedules to meet 1 January 2020 Federal Aviation Administration compliance deadline for ADS-B(Out).										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0549 / Trainer Acft Series					Modification Number / Title: 1 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	124.162	2.049	1.551	0.000	0.000	0.000	1.546	1.533	1.576	1.616	0.000	134.033
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	124.162	2.049	1.551	0.000	0.000	0.000	1.546	1.533	1.576	1.616	0.000	134.033
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	124.162	2.049	1.551	0.000	0.000	0.000	1.546	1.533	1.576	1.616	0.000	134.033
<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: This Operational Safety Improvement Program (OSIP) funds modifications to T-44 aircraft to provide required Avionics upgrades and address Avionics obsolescence. This OSIP includes efforts that address, avionics and supporting sub-system modifications and/or upgrades to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications may also be driven by new cyber security requirements. This OSIP also funds upgrades to avionic systems necessary for compliance with Federal Aviation Administration (FAA) 28 May 2010 release DoT/FAA, 14 CFR Part 91: Automated Dependent Surveillance Broadcast (ADS-B) Out performance requirements to support Air Traffic Control (ATC) service final rule. This mandate stipulates that all aircraft required to have unrestricted access to operate in Classes A, B and C airspace; certain Class E airspace, and other specified airspace requiring ADS-B Out, must be in compliance with this regulation by January 1, 2020. Current Engineering Change Proposals (ECPs) include: ADS-B Out; Avionics Cooling; Auxiliary Battery; and Avionics Obsolescence/DMSMS. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Continue incorporation of engineering change proposals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0549 / Trainer Acft Series						Modification Number / Title: 1 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: T-44 T-44				Modification Type: Safety				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years Qty (Each) / Total Cost (\$ M)	FY 2018 Qty (Each) / Total Cost (\$ M)	FY 2019 Qty (Each) / Total Cost (\$ M)	FY 2020 Base Qty (Each) / Total Cost (\$ M)	FY 2020 OCO Qty (Each) / Total Cost (\$ M)	FY 2020 Total Qty (Each) / Total Cost (\$ M)	FY 2021 Qty (Each) / Total Cost (\$ M)	FY 2022 Qty (Each) / Total Cost (\$ M)	FY 2023 Qty (Each) / Total Cost (\$ M)	FY 2024 Qty (Each) / Total Cost (\$ M)	To Complete Qty (Each) / Total Cost (\$ M)	Total Qty (Each) / Total Cost (\$ M)	
Procurement													
1.1.1) ADS-B Out - NonOrganic <i>Installation 1 of 2</i>	28 / 0.080	12 / 0.034	12 / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 0.234	
1.1.2) Archived A-Kit ECPs - Organic ^(*)	54 / 33.367	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 33.367	
1.2.1) Installation Kits Non-recurring - Organic ^(*)	3 / 5.641	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 5.641	
2.1.1) ADS-B OUT - Organic ^(*)	28 / 1.370	12 / 0.970	12 / 0.658	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 2.998	
2.1.2) Avionics Cooling Non-Organic - NonOrganic ⁽¹⁾ <i>Installation 2 of 2</i>	7 / 0.077	5 / 0.035	5 / 0.036	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.148	
2.1.3) Avionics Cooling Organic - Organic ^(*)	14 / 0.124	11 / 0.098	11 / 0.081	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	36 / 0.303	
2.1.4) Avionics Obsolescence/DMSMS ECPs - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 0.763	- / -	54 / 0.900	- / -	108 / 1.663	
2.1.5) Archived B-Kit ECPs - Organic ^(*)	- / 53.839	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 53.839	
2.2.1) Avionics Obsolescence/DMSMS ECPs NRE - Organic ^{(*) (2)}	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.443	- / 0.666	- / 1.330	- / 0.506	- / -	- / 3.945	
2.2.2) ADS-B OUT NRE - Organic ^(*)	- / 0.833	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.833	
Subtotal: Procurement	- / 95.331	- / 1.137	- / 0.895	- / -	- / -	- / -	- / 1.443	- / 1.429	- / 1.330	- / 1.406	- / 0.000	- / 102.971	
Support													
3.2) DATA - Publications	- / 0.392	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040	- / -	- / -	- / 0.432	
3.3) Training Equipment	14 / 22.707	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 22.707	
3.5) Other Support	- / 5.456	- / 0.767	- / 0.390	- / -	- / -	- / -	- / 0.103	- / 0.104	- / 0.206	- / 0.210	- / -	- / 7.236	
Subtotal: Support	- / 28.555	- / 0.767	- / 0.390	- / -	- / -	- / -	- / 0.103	- / 0.104	- / 0.246	- / 0.210	- / 0.000	- / 30.375	
Installation													
Installation 1 of 2: ADS-B Out	- / 0.263	- / 0.129	- / 0.258	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.650	
Installation 2 of 2: Avionics Cooling Non-Organic	- / 0.013	- / 0.016	- / 0.008	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.037	
Subtotal: Installation	- / 0.276	- / 0.145	- / 0.266	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.687	
Total													
Total Cost (Procurement + Support + Installation)	124.162	2.049	1.551	0.000	0.000	0.000	1.546	1.533	1.576	1.616	0.000	134.033	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0549 / Trainer Acft Series										Modification Number / Title: 1 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: ADS-B Out																															
Manufacturer Information																															
Manufacturer Name: Dyncorp International ADS-B Out															Manufacturer Location: Corpus Christi, TX - ADS-B Out																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jun 2018				Jan 2019																									
Delivery Dates		Oct 2018				Apr 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: ADS-B Out																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		7 / 0.263		21 / 0.129		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		28 / 0.392					
FY 2018		- / -		- / -		12 / 0.128		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.128					
FY 2019		- / -		- / -		12 / 0.130		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.130					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		7 / 0.263		21 / 0.129		24 / 0.258		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		52 / 0.650					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	5	5	5	6	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52
Out	4	3	5	5	5	6	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0549 / Trainer Acft Series										Modification Number / Title: 1 / OSIP 005-04 - T44 AVIONICS OBSOLESCENCE											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: Avionics Cooling Non-Organic																															
Manufacturer Information																															
Manufacturer Name: Dyncorp International - Avionics Cooling															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018																									
Delivery Dates		Nov 2017				Nov 2018																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Avionics Cooling Non-Organic																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		7 / 0.013		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.013					
FY 2018		- / -		5 / 0.016		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.016					
FY 2019		- / -		- / -		5 / 0.008		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.008					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		7 / 0.013		5 / 0.016		5 / 0.008		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		17 / 0.037					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	1	1	2	1	1	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	7	1	1	2	1	1	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Footnotes: ⁽¹⁾ 2.1.2) Avionics Cooling Non-Organic: The A to C conversion has changed the avionics from Analog to Digital in the aircraft. The Digital avionics require cooling and this modification is necessary to address refrigerant obsolescence of the air conditioning system that supports cooling of those avionics. This cost element represents kits that will be field level installed via contractor field mod team. ⁽²⁾ 2.2.1) Avionics Obsolescence/DMSMS ECPs NRE: This cost element supports the NRE for FY21-24, funding various avionics ECPs and obsolescence issues resulting from an aging aircraft.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0549 / Trainer Acft Series					Modification Number / Title: 2 / OSIP 006-07 TH-57 SAFETY UPGRADE		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	56.401	6.052	10.004	5.616	0.000	5.616	23.427	24.690	25.340	25.973	0.000	177.503
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	56.401	6.052	10.004	5.616	0.000	5.616	23.427	24.690	25.340	25.973	0.000	177.503
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	56.401	6.052	10.004	5.616	0.000	5.616	23.427	24.690	25.340	25.973	0.000	177.503
<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: This Operational Safety Improvement Program (OSIP) funds modifications to TH-57 aircraft to implement safety updates as well as required upgrades to avionics systems for Federal Aviation Administration (FAA) compliance. This OSIP includes efforts that address modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications include Airframe, sub-systems, and avionics systems. Modifications, particularly to avionics systems, may also be driven by new cyber security requirements. This OSIP also funds upgrades to avionics systems necessary for compliance with FAA 28 May 2010 release DoT/FAA, 14 CFR Part 91: Automated Dependent Surveillance Broadcast (ADS-B) Out performance requirements to support Air Traffic Control (ATC) service final rule. This mandate stipulates that all aircraft required to have unrestricted access to operate in Classes A, B, and C airspace; certain Class E airspace, and other specified airspace requiring ADS-B Out, must be in compliance with this regulation by January 1, 2020. Current Engineering Change Proposals (ECPs) include, but are not limited to: ADS-B Out; TACAN+R-NAV Replacement; KAPTON Wiring Replacement and Avionics Obsolescence. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Continue incorporation of engineering change proposals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0549 / Trainer Acft Series				Modification Number / Title: 2 / OSIP 006-07 TH-57 SAFETY UPGRADE					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: TH-57B/C			Modification Type: Conversion/Safety					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ADS-B Out/VHF-Radio - NonOrganic Installation 1 of 1	48 / 1.131	30 / 1.217	32 / 1.653	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 4.001	
1.1.2) TACAN + R-NAV Replacement - NonOrganic Installation 1 of 1	- / -	- / -	27 / 1.067	22 / 0.814	- / -	22 / 0.814	22 / 0.924	22 / 0.952	5 / 0.219	- / -	- / -	98 / 3.976	
1.1.3) KAPTON Wiring Replacement - NonOrganic Installation 1 of 1	- / -	- / -	- / -	- / -	- / -	- / -	24 / 2.400	24 / 2.400	24 / 2.400	- / -	- / -	72 / 7.200	
1.2.1) Installation Kits Non-recurring - Organic(*)	8 / 3.556	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.556	
2.1.1) ADS-B Out/VHF Radio - Organic(*)	48 / 1.616	30 / 1.949	32 / 1.969	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 5.534	
2.1.2) NVG Cockpit - Organic(*)	- / -	- / -	- / -	- / -	- / -	- / -	50 / 10.000	- / -	- / -	- / -	- / -	50 / 10.000	
2.1.3) TACAN + R-NAV Replacement - Organic(*) (3)	- / -	- / -	27 / 1.496	22 / 0.943	- / -	22 / 0.943	22 / 0.915	22 / 0.944	5 / 0.216	- / -	- / -	98 / 4.514	
2.1.4) Avionics Obsolescence (B kits) - Organic(*)	- / 0.020	- / -	- / -	- / -	- / -	- / -	22 / 6.020	55 / 16.189	21 / 19.154	46 / 22.849	- / -	144 / 64.232	
2.1.5) Archived ECP B-kits - Organic(*)	- / 2.682	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.682	
2.2.1) ADS-B Out/VHF-Radio NRE - Organic(*)	- / 2.303	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.303	
Subtotal: Procurement	- / 11.308	- / 3.166	- / 6.185	- / 1.757	- / -	- / 1.757	- / 20.259	- / 20.485	- / 21.989	- / 22.849	- / 0.000	- / 107.998	
Support													
3.1) DATA - Publications (4)	- / 0.031	- / -	- / 0.831	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.862	
3.2) Training Equipment - Trainer OFT	- / 15.477	- / 0.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.745	
3.4) Other Support (5)	- / 29.585	- / 2.157	- / 2.431	- / 2.646	- / -	- / 2.646	- / 2.073	- / 2.702	- / 2.937	- / 3.024	- / -	- / 47.555	
Subtotal: Support	- / 45.093	- / 2.425	- / 3.262	- / 2.646	- / -	- / 2.646	- / 2.073	- / 2.702	- / 2.937	- / 3.024	- / 0.000	- / 64.162	
Installation													
Installation 1 of 1: GRP: OSIP 006-07 TH-57 SAFETY UPGRADE	- / -	- / 0.461	- / 0.557	- / 1.213	- / 0.000	- / 1.213	- / 1.095	- / 1.503	- / 0.414	- / 0.100	- / 0.000	- / 5.343	
Subtotal: Installation	- / 0.000	- / 0.461	- / 0.557	- / 1.213	- / -	- / 1.213	- / 1.095	- / 1.503	- / 0.414	- / 0.100	- / 0.000	- / 5.343	
Total													
Total Cost (Procurement + Support + Installation)	56.401	6.052	10.004	5.616	0.000	5.616	23.427	24.690	25.340	25.973	0.000	177.503	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0549 / Trainer Acft Series										Modification Number / Title: 2 / OSIP 006-07 TH-57 SAFETY UPGRADE											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: GRP: OSIP 006-07 TH-57 SAFETY UPGRADE																															
Manufacturer Information																															
Manufacturer Name: Various ⁽⁶⁾															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 0															Production Leadtime (<i>in Months</i>): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Logistics Support Provider:: Installation Name: OSIP 006-07 TH-57 SAFETY UPGRADE																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)																	
Prior Years		- / -	48 / 0.461	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	48 / 0.461																		
FY 2018		- / -	- / -	30 / 0.358	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	30 / 0.358																		
FY 2019		- / -	- / -	27 / 0.199	32 / 0.353	0 / 0.000	32 / 0.353	- / -	- / -	- / -	- / -	0 / 0.000	59 / 0.552																		
FY 2020		- / -	- / -	- / -	22 / 0.860	0 / 0.000	22 / 0.860	- / -	- / -	- / -	- / -	0 / 0.000	22 / 0.860																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	46 / 1.095	- / -	- / -	- / -	0 / 0.000	46 / 1.095																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 1.503	22 / 0.414	- / -	0 / 0.000	46 / 1.917																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.100	0 / 0.000	5 / 0.100																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	48 / 0.461	57 / 0.557	54 / 1.213	0 / 0.000	54 / 1.213	46 / 1.095	24 / 1.503	22 / 0.414	5 / 0.100	0 / 0.000	256 / 5.343																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	12	12	14	15	14	14	8	15	15	16	12	12	12	10	6	6	6	6	6	6	6	4	-	-	-	5	-	256
Out	-	12	12	12	12	14	15	14	14	8	15	15	16	6	12	12	10	6	6	6	6	6	6	6	4	-	-	-	5	6	256
Footnotes: ⁽³⁾ 2.1.3) TACAN + R-NAV Replacement: This cost-element was added to break-out TACAN+R-NAV Replacement B-kit costs. ⁽⁴⁾ (3.1) DATA Publications: This cost element funds FY19 publications for multiple ECP products to include the TACAN pubs procurement																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0549 / Trainer Acft Series	Modification Number / Title: 2 / OSIP 006-07 TH-57 SAFETY UPGRADE
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽⁵⁾ (3.4) Other Support: This cost element funds the Other Support. The increase in FY20 supports the increased procurements for various products such as KAPTON Wiring and NVG Cockpit. ⁽⁶⁾ Installation Modification Item 1 of 1: Items that make up this installation group have various manufacturer as well as various Administrative Leadtime and Production Leadtime. All installations are made by the TH-57 Contractor Logistics Support Provider.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0549 / Trainer Acft Series				Modification Number / Title: 3 / OSIP 015-16 TPS Aircraft			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	2.295	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.400
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	2.295	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.400
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	2.295	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.400
<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:

Test Pilot School (TPS) aircraft support training of test pilots, Naval Flight Officers (NFOs), and Test Engineers. TPS aircraft include T-38, UH-72, OH-58, U-6, U-1, X-26, and C-26. Efforts include modifications to airframe, avionics, and sub-systems, necessary to address safety, reliability, maintainability, obsolescence, capability, and Diminishing Manufacturing Source (DMSMS) requirements. Funds will be utilized to manage, process, and incorporate Engineering Change Proposals (ECPs) and implement changes to sustain and improve TPS aircraft readiness including safety, mission availability, structural integrity, capability, and component (avionics/systems) reliability, maintainability, and obsolescence conditions. Current initiatives include Avionics Component Improvement (AvCI), which replaces obsolete T-38 avionics to maintain concurrency with USAF configuration, significantly reducing support costs, and enables the aircraft to safely operate to their planned FY35 divestiture. This modification will execute a USAF TCTO, upgrading the following components:

- Mission Computer (MDP)
- Heads-Up Display (HUD)
- VHF Navigation and Communications

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0549 / Trainer Acft Series					Modification Number / Title: 3 / OSIP 015-16 TPS Aircraft				
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: [No Model Specified]				Modification Type: Safety				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: OSIP 015-16 TPS Aircraft													
A Kits													
Recurring													
1.1.1) VHF A-Kits - NonOrganic	10 / 0.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.002	
Subtotal: Recurring	- / 0.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.002	
B Kits													
Recurring													
2.1.1) MDP B-Kits - Organic	10 / 0.375	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.375	
2.1.2) VHF B-Kits - Organic	10 / 0.590	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.590	
2.1.3) HUD B-Kits - Organic	10 / 1.021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.021	
Subtotal: Recurring	- / 1.986	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.986	
Non-Recurring													
2.2.1) HUD NRE - Organic	- / 0.307	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.307	
Subtotal: Non-Recurring	- / 0.307	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.307	
Subtotal: OSIP 015-16 TPS Aircraft	40 / 2.295	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 2.295	
Subtotal: Procurement, All Modification Items	- / 2.295	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.295	
Installation													
Modification Item 1 of 1: OSIP 015-16 TPS Aircraft													
Subtotal: Installation	- / 0.000	- / 0.000	- / 0.105	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.105	
Total													
Total Cost (Procurement + Support + Installation)	2.295	0.000	0.105	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.400	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0549 / Trainer Acft Series										Modification Number / Title: 3 / OSIP 015-16 TPS Aircraft											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: OSIP 015-16 TPS Aircraft																															
Manufacturer Information																															
Manufacturer Name: Various														Manufacturer Location: Various																	
Administrative Leadtime <i>(in Months)</i> : 1														Production Leadtime <i>(in Months)</i> : 13																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Method:: Installation Name: OSIP 015-16 TPS Aircraft																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		10 / 0.105		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.105					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		10 / 0.105		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.105					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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 (Organic): MDP B-Kits																															
																								Installation Quantity: 10							
Method of Implementation (Organic): VHF B-Kits																															
																								Installation Quantity: 10							

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0549 / Trainer Acft Series	Modification Number / Title: 3 / OSIP 015-16 TPS Aircraft
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: OSIP 015-16 TPS Aircraft		
Installation Information		
Method of Implementation (Organic): HUD B-Kits		Installation Quantity: 10

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0549 / Trainer Acft Series					Modification Number / Title: 4 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	53.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.044
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	53.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.044
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	53.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.044
(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: Inactive OSIPs prior year totals. [Inactive OSIPs] Includes TH-57 Cockpit Camera Mounts, ADS-B Val/Ver, and Kapton Wiring NRE												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0549 / Trainer Acft Series					Modification Number / Title: 4 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 53.044	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 53.044	
Subtotal: Procurement	- / 53.044	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 53.044	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	53.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	53.044	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0556 / C-2A

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	482.736	18.592	8.327	15.747	0.000	15.747	17.491	5.395	0.000	0.000	5.578	553.866
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	482.736	18.592	8.327	15.747	0.000	15.747	17.491	5.395	0.000	0.000	5.578	553.866
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	482.736	18.592	8.327	15.747	0.000	15.747	17.491	5.395	0.000	0.000	5.578	553.866

(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:

The C-2A(R) Greyhound is a high wing monoplane, twin engine turbo-prop aircraft capable of operating from both a shore base and all operational United States Navy aircraft carrier classes. The mission of the C-2A(R) is to provide rapid response Carrier Onboard Delivery of fleet essential supplies, repair parts, and personnel to sustain at sea operations of deployed battle groups. In addition, the C-2A(R) provides airdrop delivery and mobilization support for special operations forces from land bases and carriers. The design service life of the C-2A(R) was 10,000 flight hours with 15,000 landings. The goal of the Critical Components Operational Safety Improvement Program (OSIP) (11-07) is to continue procurement efforts for the multiple modifications. Critical Components are composed of Communication Avionics and Radio Upgrades, Engine Power & Propulsion, Ejector Valve, Hydraulics, and Transducer Engineering Change Proposals. The C-2 Critical Brake Upgrade OSIP (04-16) provides funding for air vehicle modifications to improve operational ground controllability of C-2A aircraft. The Structural Enhancements OSIP (14-17) targets improvements to structural integrity. These improvements are a vital requirement for C-2 to maintain the aircraft in the Fleet. The modification to the wing center section is to prevent structural cracks due to fatigue. There is a total number of 34 C-2A aircraft.

Funding in "To Complete" is required to complete the Critical Components (OSIP 11-07) and the Structural Enhancements (OSIP 14-17) programs.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy				Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft				P-1 Line Item Number / Title: 0556 / C-2A	
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / 011-07 Critical Components (Mission Performance Enhancements)				- / 22.652	- / 2.245	- / 1.182	- / 3.471	- / 0.000	- / 3.471
P-3a	2 / 004-16 C-2 Critical Brake Upgrade (Mission Performance Enhancements)				- / 8.132	- / 5.131	- / 3.099	- / 5.248	- / 0.000	- / 5.248
P-3a	3 / 014-17 Structural Enhancements (Mission Performance Enhancements)				- / 8.016	- / 11.216	- / 4.046	- / 7.028	- / 0.000	- / 7.028
P-3a	4 / Inactive OSIPS (TBD)				- / 443.936	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 482.736	- / 18.592	- / 8.327	- / 15.747	- / 0.000	- / 15.747

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / 011-07 Critical Components (Mission Performance Enhancements)				- / 5.767	- / 1.828	- / 0.000	- / 0.000	- / 5.578	- / 42.723
P-3a	2 / 004-16 C-2 Critical Brake Upgrade (Mission Performance Enhancements)				- / 3.590	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 25.200
P-3a	3 / 014-17 Structural Enhancements (Mission Performance Enhancements)				- / 8.134	- / 3.567	- / 0.000	- / 0.000	- / 0.000	- / 42.007
P-3a	4 / Inactive OSIPS (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 443.936
P-40	Total Gross/Weapon System Cost				- / 17.491	- / 5.395	- / 0.000	- / 0.000	- / 5.578	- / 553.866

*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:
 Basis for FY20 request is to procure the Wing Center Section, Ejector Valves, ARC-210, and Critical Brakes kits, installs, and associated program costs.

The FY2020 funding request was reduced by \$5.438 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0556 / C-2A				Modification Number / Title: 1 / 011-07 Critical Components			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	22.652	2.245	1.182	3.471	0.000	3.471	5.767	1.828	0.000	0.000	5.578	42.723
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	22.652	2.245	1.182	3.471	0.000	3.471	5.767	1.828	0.000	0.000	5.578	42.723
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	22.652	2.245	1.182	3.471	0.000	3.471	5.767	1.828	0.000	0.000	5.578	42.723
<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 C-2A(R) Service Life Extension Program (SLEP) extended the Navy's Carrier Onboard Delivery capability beyond current projected service life. With a longer air vehicle life, problems with other non-SLEP systems require upgrade/modifications. This Operational Safety and Improvement Program procures a portion of the Critical Components communication avionics, radios, transducers, ejector valves, hydraulics, power and propulsion subsystems.

Basis for FY20 request is to procure the Ejector Valve components, ARC-210 kits and associated program support.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0556 / C-2A				Modification Number / Title: 1 / 011-07 Critical Components					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: C-2A(R) Aircraft			Modification Type: Mission Performance Enhancements					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 011-07 Critical Components													
A Kits													
Recurring													
1.1.1) Ejector Valve - Organic ⁽¹⁾ 26 / 1.768 26 / 1.768 13 / 1.017 15 / 1.173 - / - 15 / 1.173 - / - - / - - / - 80 / 5.726													
1.1.2) ARC-210 - NonOrganic ⁽²⁾ - / - - / - - / - 5 / 1.624 - / - 5 / 1.624 15 / 4.965 4 / 1.351 - / - - / - 11 / 3.785 35 / 11.725													
1.1.3) ARCHIVE Modification - Organic - / 9.317 - / - - / - - / - - / - - / - - / - - / - - / -													
Subtotal: Recurring - / 11.085 - / 1.768 - / 1.017 - / 2.797 - / - - / 2.797 - / 4.965 - / 1.351 - / - - / - - / 3.785 - / 26.768													
Non-Recurring													
1.2.1) Installation Kits N/R - Organic - / 2.234 - / - - / - - / - - / - - / - - / - - / - - / -													
Subtotal: Non-Recurring - / 2.234 - / - - / - - / - - / - - / - - / - - / - - / 0.000 - / 2.234													
B Kits													
Recurring													
2.1.1) Installation Equipment - Organic - / 0.470 - / - - / - - / - - / - - / - - / - - / - - / - - / 0.470													
Subtotal: Recurring - / 0.470 - / - - / - - / - - / - - / - - / - - / - - / - - / 0.000 - / 0.470													
Subtotal: 011-07 Critical Components 26 / 13.789 26 / 1.768 13 / 1.017 20 / 2.797 - / - 20 / 2.797 15 / 4.965 4 / 1.351 - / - - / - 11 / 3.785 115 / 29.472													
Subtotal: Procurement, All Modification Items - / 13.789 - / 1.768 - / 1.017 - / 2.797 - / - - / 2.797 - / 4.965 - / 1.351 - / - - / - - / 3.785 - / 29.472													
Support (All Modification Items)													
3.1) Data - / 0.746 - / - - / - - / - - / - - / - - / - - / - - / 0.746													
3.2) ILS ⁽³⁾ - / 0.926 - / 0.110 - / 0.079 - / 0.228 - / - - / 0.228 - / 0.326 - / 0.141 - / - - / - - / 0.775 - / 2.585													
3.3) Training Equipment - / 0.505 - / - - / - - / - - / - - / - - / - - / - - / - - / 0.505													
3.4) Support Equipment - / 0.007 - / - - / - - / - - / - - / - - / - - / - - / - - / 0.007													
3.5) Other Support ⁽⁴⁾ - / 6.679 - / 0.367 - / 0.086 - / 0.446 - / - - / 0.446 - / 0.446 - / 0.244 - / - - / - - / 0.927 - / 9.195													
Subtotal: Support - / 8.863 - / 0.477 - / 0.165 - / 0.674 - / - - / 0.674 - / 0.772 - / 0.385 - / - - / - - / 1.702 - / 13.038													
Installation													
Modification Item 1 of 1: 011-07 Critical Components - / 0.000 - / 0.000 - / 0.000 - / 0.000 - / 0.000 - / 0.000 - / 0.030 - / 0.092 - / 0.000 - / 0.000 - / 0.091 - / 0.213													
Subtotal: Installation - / 0.000 - / - - / - - / - - / - - / - - / 0.030 - / 0.092 - / - - / - - / 0.091 - / 0.213													
Total													
Total Cost (Procurement + Support + Installation) 22.652 2.245 1.182 3.471 0.000 3.471 5.767 1.828 0.000 0.000 5.578 42.723													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0556 / C-2A										Modification Number / Title: 1 / 011-07 Critical Components											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 011-07 Critical Components																															
Manufacturer Information																															
Manufacturer Name: Rockwell Collins - ARC-210															Manufacturer Location: New MFG - Loc																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Mar 2020				Mar 2021				Mar 2022													
Delivery Dates										Nov 2020				Nov 2021				Nov 2022													
Installation Information																															
Method of Implementation: Depot Field Mod Team:: Installation Name: ARC-210																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.030		- / -		- / -		- / -		0 / 0.000		5 / 0.030					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.092		- / -		- / -		0 / 0.000		15 / 0.092					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.024		4 / 0.024					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		11 / 0.067		11 / 0.067					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.030		15 / 0.092		- / -		- / -		15 / 0.091		35 / 0.213					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	4	4	4	-	-	-	-	-	-	-	-	15	35
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	1	3	4	4	4	-	-	-	-	-	-	-	-	15	35
Method of Implementation (Organic): Ejector Valve																															
																				Installation Quantity: 80											
Footnotes: ⁽¹⁾ FY20 unit cost reflects actual contracted kits costs.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0556 / C-2A	Modification Number / Title: 1 / 011-07 Critical Components
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(2) Kits procured in FY22 will be installed in To Complete due to FY23 funding being removed. (3) FY 2020 increase to ILS in order to support procurement of ARC-210 and Ejector Valve kits. (4) FY 2020 increase to Other Support in order to support procurement of ARC-210 and Ejector Valve kits.		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0556 / C-2A	Modification Number / Title: 2 / 004-16 C-2 Critical Brake Upgrade

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	8.132	5.131	3.099	5.248	0.000	5.248	3.590	0.000	0.000	0.000	0.000	25.200
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	8.132	5.131	3.099	5.248	0.000	5.248	3.590	0.000	0.000	0.000	0.000	25.200
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	8.132	5.131	3.099	5.248	0.000	5.248	3.590	0.000	0.000	0.000	0.000	25.200
(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 C-2A(R) Greyhound Critical Brake Upgrade adds an Anti-Skid Brake System (ABS) to the aircraft which helps mitigate directional stability safety issues by enhancing ground controllability for land based runway conditions.

FY20 funds are for Critical Brake Upgrade kit procurement and program support for kits procured with prior year execution balances.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Preliminary Design Review completed 3rd Qtr of FY13. Critical Design Review completed 4th Qtr of FY13. Flight Testing began 2nd Qtr FY16.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0556 / C-2A					Modification Number / Title: 2 / 004-16 C-2 Critical Brake Upgrade			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: C-2A(R) Aircraft				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 004-16 C-2 Critical Brake Upgrade													
A Kits													
Recurring													
1.1.1) Critical Brakes - NonOrganic ⁽⁵⁾	11 / 1.650	8 / 1.248	- / -	14 / 2.226	- / -	14 / 2.226	- / -	- / -	- / -	- / -	- / -	33 / 5.124	
Subtotal: Recurring	- / 1.650	- / 1.248	- / -	- / 2.226	- / -	- / 2.226	- / -	- / -	- / -	- / -	- / 0.000	- / 5.124	
Non-Recurring													
1.2.1) A-Kits N/R - Organic	- / 1.038	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.038	
Subtotal: Non-Recurring	- / 1.038	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.038	
B Kits													
Recurring													
2.1.1) Critical Brakes B-kit - Organic	11 / 0.972	8 / 0.734	- / -	14 / 0.983	- / -	14 / 0.983	- / -	- / -	- / -	- / -	- / -	33 / 2.689	
Subtotal: Recurring	- / 0.972	- / 0.734	- / -	- / 0.983	- / -	- / 0.983	- / -	- / -	- / -	- / -	- / 0.000	- / 2.689	
Subtotal: 004-16 C-2 Critical Brake Upgrade	22 / 3.660	16 / 1.982	- / -	28 / 3.209	- / -	28 / 3.209	- / -	- / -	- / -	- / -	- / -	66 / 8.851	
Subtotal: Procurement, All Modification Items	- / 3.660	- / 1.982	- / -	- / 3.209	- / -	- / 3.209	- / -	- / -	- / -	- / -	- / 0.000	- / 8.851	
Support (All Modification Items)													
3.1) Data	- / 0.424	- / 0.218	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.642	
3.2) ILS	- / 1.185	- / 0.505	- / 0.443	- / 0.452	- / -	- / 0.452	- / 0.526	- / -	- / -	- / -	- / -	- / 3.111	
3.3) Training Equipment	- / -	- / -	- / 0.276	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.276	
3.4) Support Equipment	- / 0.458	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.458	
3.5) Other Support	- / 2.405	- / 1.326	- / 1.566	- / 1.587	- / -	- / 1.587	- / 1.609	- / -	- / -	- / -	- / -	- / 8.493	
Subtotal: Support	- / 4.472	- / 2.049	- / 2.285	- / 2.039	- / -	- / 2.039	- / 2.135	- / -	- / -	- / -	- / 0.000	- / 12.980	
Installation													
Modification Item 1 of 1: 004-16 C-2 Critical Brake Upgrade	- / 0.000	- / 1.100	- / 0.814	- / 0.000	- / 0.000	- / 0.000	- / 1.455	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.369	
Subtotal: Installation	- / 0.000	- / 1.100	- / 0.814	- / -	- / -	- / -	- / 1.455	- / -	- / -	- / -	- / 0.000	- / 3.369	
Total													
Total Cost (Procurement + Support + Installation)	8.132	5.131	3.099	5.248	0.000	5.248	3.590	0.000	0.000	0.000	0.000	25.200	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0556 / C-2A										Modification Number / Title: 2 / 004-16 C-2 Critical Brake Upgrade											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 004-16 C-2 Critical Brake Upgrade																															
Manufacturer Information																															
Manufacturer Name: Critical Brake Upgrade															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Apr 2018								Apr 2020																					
Delivery Dates		Apr 2019								Apr 2021																					
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Critical Brake Upgrade																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		11 / 1.100		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		11 / 1.100					
FY 2018		- / -		- / -		8 / 0.814		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.814					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		14 / 1.455		- / -		- / -		- / -		- / -		0 / 0.000		14 / 1.455					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		11 / 1.100		8 / 0.814		- / -		- / -		- / -		- / -		14 / 1.455		- / -		- / -		- / -		0 / 0.000		33 / 3.369					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	5	2	2	2	-	-	-	-	2	4	4	4	-	-	-	-	-	-	-	-	-	-	-	33
Out	-	-	-	-	2	3	3	5	2	2	2	-	-	-	-	2	4	4	4	-	-	-	-	-	-	-	-	-	-	-	33
Method of Implementation (Organic): Critical Brakes B-kit																															
																				Installation Quantity: 33											
Footnotes:																															
⁽⁵⁾ Critical Brakes A-Kits: The FY 2019 funding request was reduced by \$1.347 million to account for the availability of prior year execution balances.																															

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0556 / C-2A				Modification Number / Title: 3 / 014-17 Structural Enhancements			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	8.016	11.216	4.046	7.028	0.000	7.028	8.134	3.567	0.000	0.000	0.000	42.007
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	8.016	11.216	4.046	7.028	0.000	7.028	8.134	3.567	0.000	0.000	0.000	42.007
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	8.016	11.216	4.046	7.028	0.000	7.028	8.134	3.567	0.000	0.000	0.000	42.007
<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 structural enhancements to the C-2 series aircraft target improvements to structural integrity and support costs. These improvements are a vital requirement for C-2 to maintain the aircraft in the Fleet until the planned sundown. Structural changes to the wing center section will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. This effort will take the C-2 Fleet to full service life.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0556 / C-2A					Modification Number / Title: 3 / 014-17 Structural Enhancements			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: C-2A				Modification Type: Mission Performance Enhancements				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 014-17 Structural Enhancements													
B Kits													
Recurring													
2.1.1) Wing Center Section - NonOrganic ⁽⁶⁾	9 / 5.252	10 / 5.953	- / -	6 / 3.716	- / -	6 / 3.716	5 / 3.158	- / -	- / -	- / -	- / -	30 / 18.079	
Subtotal: Recurring	- / 5.252	- / 5.953	- / -	- / 3.716	- / -	- / 3.716	- / 3.158	- / -	- / -	- / -	- / 0.000	- / 18.079	
Non-Recurring													
2.2.1) B Kits N/R - Organic	- / 0.901	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.901	
Subtotal: Non-Recurring	- / 0.901	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.901	
Subtotal: 014-17 Structural Enhancements	9 / 6.153	10 / 5.953	- / -	6 / 3.716	- / -	6 / 3.716	5 / 3.158	- / -	- / -	- / -	- / -	30 / 18.980	
Subtotal: Procurement, All Modification Items	- / 6.153	- / 5.953	- / -	- / 3.716	- / -	- / 3.716	- / 3.158	- / -	- / -	- / -	- / 0.000	- / 18.980	
Support (All Modification Items)													
3.1) Data ⁽⁷⁾	- / 0.202	- / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.409	
3.2) ILS	- / 0.438	- / 0.540	- / 0.625	- / 0.666	- / -	- / 0.666	- / 0.670	- / 0.335	- / -	- / -	- / -	- / 3.274	
3.3) Support Equipment	- / 0.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.497	
3.4) Other Support	- / 0.726	- / 0.741	- / 0.854	- / 0.871	- / -	- / 0.871	- / 1.218	- / 0.607	- / -	- / -	- / -	- / 5.017	
Subtotal: Support	- / 1.863	- / 1.488	- / 1.479	- / 1.537	- / -	- / 1.537	- / 1.888	- / 0.942	- / -	- / -	- / 0.000	- / 9.197	
Installation													
Modification Item 1 of 1: 014-17 Structural Enhancements	- / 0.000	- / 3.775	- / 2.567	- / 1.775	- / 0.000	- / 1.775	- / 3.088	- / 2.625	- / 0.000	- / 0.000	- / 0.000	- / 13.830	
Subtotal: Installation	- / 0.000	- / 3.775	- / 2.567	- / 1.775	- / -	- / 1.775	- / 3.088	- / 2.625	- / -	- / -	- / 0.000	- / 13.830	
Total													
Total Cost (Procurement + Support + Installation)	8.016	11.216	4.046	7.028	0.000	7.028	8.134	3.567	0.000	0.000	0.000	42.007	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0556 / C-2A										Modification Number / Title: 3 / 014-17 Structural Enhancements											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 014-17 Structural Enhancements																															
Manufacturer Information																															
Manufacturer Name: Wing Center Section															Manufacturer Location: Field Mod Team																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2018				Nov 2019				Nov 2020				Nov 2021																	
Delivery Dates		Jul 2019				Jul 2020				Jul 2021				Jul 2022																	
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Wing Center Section																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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		- / -	9 / 3.775		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		9 / 3.775								
FY 2018		- / -	- / -		6 / 2.567		4 / 1.775		0 / 0.000		4 / 1.775		- / -		- / -		- / -		- / -		0 / 0.000		10 / 4.342								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		6 / 3.088		- / -		- / -		- / -		0 / 0.000		6 / 3.088								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		5 / 2.625		- / -		- / -		0 / 0.000		5 / 2.625								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	9 / 3.775		6 / 2.567		4 / 1.775		0 / 0.000		4 / 1.775		6 / 3.088		5 / 2.625		- / -		- / -		0 / 0.000		30 / 13.830								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	1	1	1	1	1	2	2	1	1	2	2	1	-	-	-	-	-	-	-	30
Out	-	-	-	-	3	2	2	2	1	2	2	1	1	1	1	1	2	2	1	1	2	2	1	-	-	-	-	-	-	-	30
Footnotes: ⁽⁶⁾ The FY 2019 funding request was reduced by \$3.470 million to account for the availability of prior year execution balances. ⁽⁷⁾ FY22 funding for ILS and Other Support costs support installation of kits procured in FY21.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy

Date: March 2019

Appropriation / Budget Activity / Budget Sub Activity:
1506N / 05 / 1

P-1 Line Item Number / Title:
0556 / C-2A

Modification Number / Title:
4 / Inactive OSIPS

ID Code (A=Service Ready, B=Not Service Ready) :

MDAP/MAIS Code:

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	443.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	443.936
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	443.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	443.936
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	443.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	443.936
(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:

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0556 / C-2A					Modification Number / Title: 4 / Inactive OSIPS				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 443.936	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 443.936	
Subtotal: Procurement	- / 443.936	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 443.936	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	443.936	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	443.936	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0560 / C-130 Series					
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: 433												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	664.383	204.444	70.537	122.671	0.000	122.671	144.033	132.764	135.396	141.961	272.377	1,888.566
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	664.383	204.444	70.537	122.671	0.000	122.671	144.033	132.764	135.396	141.961	272.377	1,888.566
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	664.383	204.444	70.537	122.671	0.000	122.671	144.033	132.764	135.396	141.961	272.377	1,888.566
<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:												
DESCRIPTION: This item funds modifications to C/KC-130 aircraft. The Lockheed C/KC-130 aircraft is a four engine, high-wing, all metal, long range, land based monoplane capable of all-weather transport of cargo or personnel and in-flight refueling. There are currently 96 aircraft in the Navy and Marine Corps inventory (53 active and 43 reserve). The expected Service Life is as follows:												
T/M/S Service Date Service Life Expected Life												
C-130T 10/91 - 11/95 450 mos. 2028-2032												
KC-130T 04/84 - 02/96 450 mos. 2021-2033												
KC-130J 09/00 - 10/26 450 mos. 2037-2063												
Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024		
Navy	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	63.521	56.099	96.900	-	96.900	121.385	109.929	112.501	111.712		
NR	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	140.923	14.438	25.771	-	25.771	22.648	22.835	22.895	30.249		
Total: Secondary Distribution	Quantity	-	-	-	-	-	-	-	-	-	-	
	Total Obligation Authority	204.444	70.537	122.671	-	122.671	144.033	132.764	135.396	141.961		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0560 / C-130 Series				
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: 433										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07) (Performance Enhancement)				- / 195.713	- / 19.940	- / 13.361	- / 28.260	- / 0.000	- / 28.260
P-3a	2 / Avionics /Obsolescence Upgrades (OSIP 008-12) (Safety / Readiness)				- / 105.905	- / 19.923	- / 13.694	- / 25.771	- / 0.000	- / 25.771
P-3a	3 / Electronic Counter Measures (OSIP 020-12) (Safety)				- / 88.918	- / 3.210	- / 6.151	- / 7.701	- / 0.000	- / 7.701
P-3a	4 / Technical Insertion (OSIP 019-14) (Safety / Reliability / Obsolescence)				- / 21.586	- / 40.338	- / 37.244	- / 58.254	- / 0.000	- / 58.254
P-3a	5 / Safety/Obsolescence Upgrades (OSIP 015-17) (Safety / Reliability / Obsolescence)				- / 1.878	- / 0.033	- / 0.087	- / 2.685	- / 0.000	- / 2.685
P-3a	6 / NP2000 (OSIP 012-18) (Safety)				- / 0.000	- / 121.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	7 / Inactive OSIPs (TBD)				- / 250.383	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 664.383	- / 204.444	- / 70.537	- / 122.671	- / 0.000	- / 122.671
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07) (Performance Enhancement)				- / 36.463	- / 30.122	- / 30.298	- / 31.271	- / 60.176	- / 445.604
P-3a	2 / Avionics /Obsolescence Upgrades (OSIP 008-12) (Safety / Readiness)				- / 22.648	- / 22.834	- / 22.895	- / 30.249	- / 84.686	- / 348.605
P-3a	3 / Electronic Counter Measures (OSIP 020-12) (Safety)				- / 7.804	- / 8.312	- / 8.637	- / 8.914	- / 60.904	- / 200.551
P-3a	4 / Technical Insertion (OSIP 019-14) (Safety / Reliability / Obsolescence)				- / 74.943	- / 69.737	- / 71.777	- / 69.682	- / 60.142	- / 503.703
P-3a	5 / Safety/Obsolescence Upgrades (OSIP 015-17) (Safety / Reliability / Obsolescence)				- / 2.175	- / 1.759	- / 1.789	- / 1.845	- / 6.469	- / 18.720
P-3a	6 / NP2000 (OSIP 012-18) (Safety)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 121.000
P-3a	7 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 250.383
P-40	Total Gross/Weapon System Cost				- / 144.033	- / 132.764	- / 135.396	- / 141.961	- / 272.377	- / 1,888.566
*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: Basis for FY2020 Budget request: Provides funding to procure aircraft modifications to include Weapons Mission Kits, Electronic Countermeasures, Safety, Reliability, Readiness and Obsolescence Issues and Communication Navigation Surveillance System (CNS) Air Traffic Management (ATM) requirements such as Block Upgrade 8.1, and Avionics Obsolescence Upgrade (AOU) for the C/KC-130 program.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series						Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	195.713	19.940	13.361	28.260	0.000	28.260	36.463	30.122	30.298	31.271	60.176	445.604
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	195.713	19.940	13.361	28.260	0.000	28.260	36.463	30.122	30.298	31.271	60.176	445.604
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	195.713	19.940	13.361	28.260	0.000	28.260	36.463	30.122	30.298	31.271	60.176	445.604
<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: DESCRIPTION/JUSTIFICATION: The KC-130 provides air-to-air refueling (AAR), aviation delivered ground refueling, tactical troop transport, aerial delivery of personnel and cargo, airborne radio relay, Digital Interoperability (DI), tactical aero-medical evacuation, Multi-Sensor Imagery and Reconnaissance (MIR), and Close Air Support (CAS). The objective of this effort is to integrate an MIR and air-to-ground weapons systems kit into the KC-130J aircraft to provide the Marine Air-Ground Task Force (MAGTF) with an intra-theater CAS and MIR capability for real time intelligence gathering and target detection, identification, and tracking in support of weapons delivery. The MIR/Weapon System Kit will consist of a MIR pod, and wing mounted air-to-ground missiles and precision guided munitions. The system will be configured as a Roll-On/Roll-Off capability for rapid deployment. Future capabilities will support DI and include video and datalink connectivity, Beyond Line of Sight (BLOS) communications, Hellfire P4/N4 compatibility, recovery of external fuel stores, and dual AAR systems, improved human factors, Joint Air to Ground Munitions (JAGM), small diameter bombs, and address obsolescence, test platform, and capability gaps. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The KC-130J MIR/Weapons Mission Kit configuration provides MIR Weapon System Capability and CAS capability through both wing mounted munitions and Derringer Door mounted Standoff Precision Guided Munitions. The 6 baseline MIR/Weapons Mission Kits and 10 baseline aircraft modifications completed production in FY14. This Operational, Safety, and Improvement Program (OSIP) provides funding to address obsolescence issues [update Battle Management System (BMS) for Hellfire P4/N4 variant missiles] and JAGM, human factors issues, and fleet capability gaps (recover external fuel stores, recover dual AAR systems, tactical datalink gap, and communications gap). A-Kits and B-Kits in FY18-FY24 address fleet capability gaps.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: C/KC-130T/J			Modification Type: Performance Enhancement					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Harvest Hawk Plus A Kit - NonOrganic Installation 1 of 4	10 / 3.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.000	
1.1.2) HH+ Radome A Kit - Organic ^(*)	6 / 0.284	- / -	- / -	3 / 0.099	- / -	3 / 0.099	1 / 0.034	- / -	- / -	- / -	- / -	10 / 0.417	
1.1.3) Weapon @ OWS430 - NonOrganic Installation 2 of 4	1 / 3.014	- / -	1 / 2.080	3 / 6.490	- / -	3 / 6.490	3 / 6.750	2 / 4.680	- / -	- / -	- / -	10 / 23.014	
1.1.4) JAGM A Kit - NonOrganic ⁽¹⁾ Installation 3 of 4	- / -	- / -	- / -	1 / 0.079	- / -	1 / 0.079	- / -	- / -	4 / 0.321	1 / 0.082	- / -	6 / 0.482	
1.1.5) 30MM Gun - NonOrganic Installation 4 of 4	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.325	3 / 0.996	2 / 0.664	6 / 1.985	
1.1.6) Archive - Organic ^(*)	- / 34.239	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.239	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 7.450	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.250	- / -	- / 7.700	
2.1.2) 30MM Gun - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 5.913	3 / 12.061	2 / 15.221	6 / 33.195	
2.1.3) Weapons @ OWS430 - Organic ^(*)	- / -	1 / 0.546	1 / 0.568	3 / 1.773	- / -	3 / 1.773	3 / 1.844	2 / 1.278	- / -	- / -	- / -	10 / 6.009	
2.1.5) Archive - Organic ^(*)	- / 92.262	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 92.262	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 21.288	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 1.175	- / -	- / 2.768	- / 8.095	- / -	- / 33.826	
2.2.2) JAGM NRE - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.483	- / -	- / -	- / -	- / -	- / 6.483	
2.2.3) JAGM Testing - Organic ^(*)	- / -	- / -	- / -	- / 1.966	- / -	- / 1.966	- / -	- / 4.360	- / -	- / -	- / -	- / 6.326	
2.2.4) JAGM Instrumentation - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.234	- / -	- / -	- / -	- / 1.234	
2.2.5) HH+ Testing - Organic ^(*)	- / 0.995	- / 2.503	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.498	
2.2.6) 30MM Gun NRE - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.718	- / -	- / -	- / 6.718	
2.2.7) 30MM Gun Testing - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.300	- / 6.300	
2.2.8) Weapons @ OWS430 NRE - Organic ^(*)	- / -	- / 9.219	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.219	
2.2.10) OWS430 Testing - Organic ^(*)	- / -	- / -	- / 4.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.252	
Subtotal: Procurement	- / 162.532	- / 12.268	- / 6.900	- / 10.907	- / -	- / 10.907	- / 16.286	- / 11.552	- / 16.045	- / 21.484	- / 22.185	- / 280.159	
Support													
3.1) Engineering Change Orders	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.257	- / 2.123	- / -	- / -	- / -	- / 4.380	
3.2) Data	- / 0.671	- / 0.037	- / 0.050	- / 0.050	- / -	- / 0.050	- / 0.150	- / 0.150	- / 0.125	- / -	- / 0.250	- / 1.483	
3.3) Training Equipment	- / 4.989	- / -	- / 0.118	- / 0.277	- / -	- / 0.277	- / 0.314	- / 0.030	- / 0.275	- / 0.799	- / 0.531	- / 7.333	
3.4) Support Equipment	- / 2.322	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500	- / -	- / -	- / 2.822	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series						Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: C/KC-130T/J				Modification Type: Performance Enhancement				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.5) ILS	- / 4.660	- / 0.547	- / 0.431	- / 0.440	- / -	- / 0.440	- / 0.467	- / 0.456	- / 0.907	- / 0.701	- / 5.310	- / 13.919	
3.6) Other Support	- / 11.263	- / 3.411	- / 2.979	- / 2.339	- / -	- / 2.339	- / 3.589	- / 4.380	- / 4.519	- / 4.987	- / 11.490	- / 48.957	
3.7) Interim Contractor Support ⁽²⁾	- / 7.175	- / 1.213	- / 2.883	- / 2.266	- / -	- / 2.266	- / 4.118	- / 3.670	- / 4.109	- / -	- / 14.608	- / 40.042	
Subtotal: Support	- / 31.080	- / 5.208	- / 6.461	- / 5.372	- / -	- / 5.372	- / 10.895	- / 10.809	- / 10.435	- / 6.487	- / 32.189	- / 118.936	
Installation													
Installation 1 of 4: Harvest Hawk Plus A Kit	- / 2.101	- / -	- / -	- / 4.625	- / 0.000	- / 4.625	- / 1.819	- / -	- / -	- / -	- / 0.000	- / 8.545	
Installation 2 of 4: Weapon @ OWS430	- / -	- / 2.464	- / -	- / 7.177	- / 0.000	- / 7.177	- / 7.463	- / 7.761	- / 0.000	- / -	- / 0.000	- / 24.865	
Installation 3 of 4: JAGM A Kit	- / -	- / -	- / -	- / 0.179	- / 0.000	- / 0.179	- / -	- / -	- / 0.974	- / 0.247	- / 0.000	- / 1.400	
Installation 4 of 4: 30MM Gun	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.844	- / 3.053	- / 5.802	- / 11.699	
Subtotal: Installation	- / 2.101	- / 2.464	- / -	- / 11.981	- / -	- / 11.981	- / 9.282	- / 7.761	- / 3.818	- / 3.300	- / 5.802	- / 46.509	
Total													
Total Cost (Procurement + Support + Installation)	195.713	19.940	13.361	28.260	0.000	28.260	36.463	30.122	30.298	31.271	60.176	445.604	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 4: Harvest Hawk Plus A Kit																															
Manufacturer Information																															
Manufacturer Name: Sierra Nevada Corporation															Manufacturer Location: Centennial, CO																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Dec 2019				Dec 2020																	
Delivery Dates										May 2020				May 2021																	
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Harvest Hawk Plus A Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 2.101		- / -		- / -		3 / 4.625		0 / 0.000		3 / 4.625		1 / 1.819		- / -		- / -		- / -		- / -		0 / 0.000		10 / 8.545					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		6 / 2.101		- / -		- / -		3 / 4.625		0 / 0.000		3 / 4.625		1 / 1.819		- / -		- / -		- / -		- / -		0 / 0.000		10 / 8.545					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	6	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	10

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 4: Weapon @ OWS430																															
Manufacturer Information																															
Manufacturer Name: Sierra Nevada Corporation															Manufacturer Location: Centennial, CO																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019				Jan 2020				Jan 2021				Jan 2022													
Delivery Dates						Oct 2019				Oct 2020				Oct 2021				Sep 2022													
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Weapon @ OWS430																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 2.464		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 2.464							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		1 / 2.392		0 / 0.000		1 / 2.392		- / -		- / -		- / -		- / -		0 / 0.000		1 / 2.392							
FY 2020		- / -		- / -		- / -		0 / 4.785		0 / 0.000		0 / 4.785		3 / 2.489		- / -		- / -		- / -		0 / 0.000		3 / 7.274							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		0 / 4.974		3 / 2.587		- / -		- / -		0 / 0.000		3 / 7.561							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 5.174		2 / 0.000		- / -		0 / 0.000		2 / 5.174							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -		1 / 2.464		- / -		1 / 7.177		0 / 0.000		1 / 7.177		3 / 7.463		3 / 7.761		2 / 0.000		- / -		0 / 0.000		10 / 24.865							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	3	-	-	-	2	-	-	-	-	-	-	-	-	10
Out	-	-	-	-	1	-	-	-	-	-	1	-	-	-	2	1	-	-	3	-	-	-	2	-	-	-	-	-	-	-	10

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 4: JAGM A Kit																															
Manufacturer Information																															
Manufacturer Name: TBD JAGM															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Dec 2019												Dec 2022				Dec 2023					
Delivery Dates										May 2020												May 2023				May 2024					
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: JAGM A Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		1 / 0.179		0 / 0.000		1 / 0.179		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.179					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.974		- / -		0 / 0.000		4 / 0.974							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.247		0 / 0.000		1 / 0.247							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		1 / 0.179		0 / 0.000		1 / 0.179		- / -		- / -		4 / 0.974		1 / 0.247		0 / 0.000		6 / 1.400							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	6
Out	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	1	-	6

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 4: 30MM Gun																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Dec 2022				Dec 2023					
Delivery Dates																						Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: 30MM Gun																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 2.844		- / -		0 / 0.000		1 / 2.844					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 3.053		0 / 0.000		3 / 3.053					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.802		2 / 5.802					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 2.844		3 / 3.053		2 / 5.802		6 / 11.699					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	3	-	2	6
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	3	2	6
Footnotes: ⁽¹⁾ Gap in FY21 & FY22 for JAGM Kit procurements is for Mission Suitability Evaluation of the JAGM TKI Kit.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0560 / C-130 Series	Modification Number / Title: 1 / C/KC-130 ISR / WEAPONS MISSION KIT (022-07)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(2) Interim Contractor Support (ICS) covers the Original Equipment Manufacturer(OEM) HH+ support for completion of test. -FY19 ICS covers the HH+ & OEM OWS-430 Test. -FY20 ICS covers the HH+ & OEM OWS-430 Production Support. -FY21 ICS covers the HH+ & OEM JAGM support. -FY22 ICS covers the HH+ & OEM JAGM Test Support. -FY23 ICS covers the HH+ & OEM OWS-430 & JAGM production completion; 30 MM Gun.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 2 / Avionics /Obsolescence Upgrades (OSIP 008-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	105.905	19.923	13.694	25.771	0.000	25.771	22.648	22.834	22.895	30.249	84.686	348.605
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	105.905	19.923	13.694	25.771	0.000	25.771	22.648	22.834	22.895	30.249	84.686	348.605
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	105.905	19.923	13.694	25.771	0.000	25.771	22.648	22.834	22.895	30.249	84.686	348.605
<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: DESCRIPTION/JUSTIFICATION: Objective of the Avionics/Obsolescence Upgrades (AOU) Operational, Safety, and Improvement Program (OSIP) is to preserve the world-wide capabilities of the C/KC-130 aircraft by providing required capability enhancements and addressing obsolescence. The legacy C/KC-130T model aircraft have been in service for 27 years and still retain many of their original systems. AOU incorporates updated technologies to support safety, reliability, supportability, obsolescence, deficiency correction, mandated modifications, commonality, interoperability, and affordability of the C/KC-130T platform. AOU updates apply to aircraft avionics, navigation, communications, transponders, sensors, transmitters, antennae, radars, and other electronic aircraft systems to meet global Communication, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) requirements and provides necessary safety equipment for aircraft carrying troops. AOU modifications will also be incorporated into existing training devices. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: AOU program is post Milestone-C, Low Rate Initial Production 2 approved. Government is Lead Systems Integrator, performing the majority of the NRE and installation of the validation and verification aircraft kits. Contract awarded for software integration non-recurring engineering and non-developmental systems in September 2012. Government ground testing on validation aircraft began 2017. Development Flight Test began January 2019 following a 14 month delay due to the K/C-130T Red Stripe that grounded most of the C/KC-130T fleet in September 2017. Validation aircraft will complete testing in FY20. Verification aircraft will undergo installation through 2020, followed by production installs.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series						Modification Number / Title: 2 / Avionics /Obsolescence Upgrades (OSIP 008-12)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: C/KC-130T/J				Modification Type: Safety / Readiness				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) A Kits - NonOrganic <i>Installation 1 of 1</i>	3 / 4.213	- / -	- / -	2 / 3.534	- / -	2 / 3.534	2 / 3.605	2 / 3.677	2 / 3.751	3 / 5.838	5 / 10.227	19 / 34.845	
1.2.1) Installation Kits N/R - Organic ⁽¹⁾	1 / 26.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 26.396	
2.1.1) B Kits - Organic ⁽¹⁾	3 / 8.928	- / -	- / -	2 / 6.880	- / -	2 / 6.880	2 / 7.052	2 / 7.228	2 / 7.409	3 / 11.491	5 / 22.931	19 / 71.919	
2.2.1) NRE/TEST - Government - Organic ⁽¹⁾	- / 8.972	- / 5.439	- / 5.591	- / 5.348	- / -	- / 5.348	- / -	- / -	- / -	- / -	- / -	- / 25.350	
2.2.2) NRE - Contractor - Organic ⁽¹⁾	1 / 23.118	- / 5.220	- / 0.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 28.761	
<i>Subtotal: Procurement</i>	- / 71.627	- / 10.659	- / 6.014	- / 15.762	- / -	- / 15.762	- / 10.657	- / 10.905	- / 11.160	- / 17.329	- / 33.158	- / 187.271	
Support													
3.1) Data ⁽³⁾	- / 0.600	- / -	- / 0.400	- / 1.678	- / -	- / 1.678	- / 0.718	- / 0.686	- / 0.407	- / 1.019	- / -	- / 5.508	
3.2) Training Equipment	- / 1.704	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.107	- / 11.811	
3.3) Support Equipment	- / 2.886	- / 0.264	- / -	- / 0.350	- / -	- / 0.350	- / 0.280	- / 0.335	- / 0.341	- / 0.447	- / 0.984	- / 5.887	
3.4) ILS	- / 4.792	- / 1.864	- / 1.696	- / 2.230	- / -	- / 2.230	- / 1.256	- / 1.137	- / 1.125	- / 1.296	- / 1.448	- / 16.844	
3.5) Other Support ⁽⁴⁾	- / 17.371	- / 4.578	- / 5.584	- / 5.751	- / -	- / 5.751	- / 4.312	- / 4.238	- / 4.218	- / 4.401	- / 12.697	- / 63.150	
<i>Subtotal: Support</i>	- / 27.353	- / 6.706	- / 7.680	- / 10.009	- / -	- / 10.009	- / 6.566	- / 6.396	- / 6.091	- / 7.163	- / 25.236	- / 103.200	
Installation													
<i>Installation 1 of 1:</i> A Kits	- / 6.925	- / 2.558	- / -	- / -	- / -	- / -	- / 5.425	- / 5.533	- / 5.644	- / 5.757	- / 26.292	- / 58.134	
<i>Subtotal: Installation</i>	- / 6.925	- / 2.558	- / -	- / -	- / -	- / -	- / 5.425	- / 5.533	- / 5.644	- / 5.757	- / 26.292	- / 58.134	
Total													
Total Cost (Procurement + Support + Installation)	105.905	19.923	13.694	25.771	0.000	25.771	22.648	22.834	22.895	30.249	84.686	348.605	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 2 / Avionics /Obsolescence Upgrades (OSIP 008-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: A Kits																															
Manufacturer Information																															
Manufacturer Name: AOU A Kits															Manufacturer Location: Multiple																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Nov 2019				Nov 2020				Nov 2021				Nov 2021									
Delivery Dates										Nov 2020				Nov 2021				Nov 2022				Nov 2023									
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		2 / 6.925		1 / 2.558		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 9.483					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.425		- / -		- / -		- / -		0 / 0.000		2 / 5.425					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.533		- / -		- / -		0 / 0.000		2 / 5.533					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.644		- / -		0 / 0.000		2 / 5.644					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.757		0 / 0.000		2 / 5.757					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 9.689		3 / 9.689					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 16.603		5 / 16.603					
Total		2 / 6.925		1 / 2.558		- / -		- / -		- / -		- / -		- / -		2 / 5.425		2 / 5.533		2 / 5.644		2 / 5.757		8 / 26.292		19 / 58.134					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	8	19
Out	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	8	19
Footnotes: ⁽³⁾ Increase in FY20 data correlates with the completion of NRE/Test efforts. ⁽⁴⁾ Other support includes lead systems integrator cost to develop and deliver AOU modification kits.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 3 / Electronic Counter Measures (OSIP 020-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	88.918	3.210	6.151	7.701	0.000	7.701	7.804	8.312	8.637	8.914	60.904	200.551
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	88.918	3.210	6.151	7.701	0.000	7.701	7.804	8.312	8.637	8.914	60.904	200.551
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	88.918	3.210	6.151	7.701	0.000	7.701	7.804	8.312	8.637	8.914	60.904	200.551
<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: DESCRIPTION/JUSTIFICATION: The KC-130 provides air-to-air refueling, rapid ground refueling, tactical troop transport, aerial delivery of personnel and cargo, airborne radio relay, Digital Interoperability (DI), tactical aero-medical evacuation, Multi-Sensor Imagery and Reconnaissance (MIR), and Close Air Support (CAS). This OSIP provides funding for the addition of new Aircraft Survivability Equipment (ASE), including Department of the Navy (DoN) Large Aircraft Infrared Counter Measures (LAIRCM) with Advanced Threat Warning (ATW) and the KC-130J Adjustable Ballast System (JABS) to the KC-130J Aircraft which will increase survivability and allow the aircraft to operate under expanded threat environments, thereby increasing combat effectiveness. The addition of DoN LAIRCM with the ATW sensor expands the aircraft's capability to perform its core Mission Essential Tasking in any infrared threat environment. This OSIP also provides funding to ensure the most effective threat adaptive, reprogrammable, computer controlled threat defeating capabilities for the Defensive Electronic Counter Measures (DECM) portion of the ASE to increase combat effectiveness as well as future upgrades to the radar warning receiver (RWR) counter measure system. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The USMC is leveraging other DoN LAIRCM platforms to provide a common solution among naval platforms and to reduce Operations and Support (O&S) costs. Modification of aircraft will be performed as a Drive-In Modification.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series				Modification Number / Title: 3 / Electronic Counter Measures (OSIP 020-12)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: C/KC-130T/J			Modification Type: Safety					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) LAIRCM A Kit - NonOrganic ⁽⁵⁾ Installation 1 of 2	18 / 4.862	1 / 0.493	3 / 2.035	3 / 2.150	- / -	3 / 2.150	3 / 2.222	3 / 2.297	3 / 2.375	3 / 1.537	22 / 9.568	59 / 27.539
1.1.2) LAIRCM JABS - NonOrganic ⁽⁶⁾ Installation 2 of 2	18 / 0.813	2 / 0.086	9 / 0.462	9 / 0.480	- / -	9 / 0.480	6 / 0.333	6 / 0.404	7 / 0.420	15 / 1.092	14 / 1.061	86 / 5.151
1.2.1) Archive - Organic ^(*)	- / 22.078	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.078
2.1.1) Archive - Organic ^(*)	- / 17.634	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.634
2.1.3) Meons - Organic ^(*)	7 / 0.612	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.113	- / 0.115	- / -	- / -	7 / 0.840
2.1.4) PCMCIA Cards - Organic ^(*)	- / 0.038	- / -	- / -	- / 0.007	- / -	- / 0.007	- / 0.005	- / 0.049	- / 0.050	- / 0.110	- / -	- / 0.259
2.1.5) GFE - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.471	- / 0.471
2.2.1) NRE/Test - Government - Organic ^(*)	- / 11.139	- / 0.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.689
Subtotal: Procurement	- / 57.176	- / 1.129	- / 2.497	- / 2.637	- / -	- / 2.637	- / 2.560	- / 2.863	- / 2.960	- / 2.739	- / 11.100	- / 85.661
Support												
3.1) Data	- / 0.113	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.113
3.2) Training Equipment	- / 0.386	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.386
3.3) Support Equipment	- / 1.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.073	- / -	- / 1.277
3.4) ILS	- / 3.666	- / 0.617	- / 0.605	- / 0.597	- / -	- / 0.597	- / 0.608	- / 0.597	- / 0.621	- / 0.653	- / 1.786	- / 9.750
3.5) Other Support	- / 9.530	- / 1.464	- / 0.671	- / 0.486	- / -	- / 0.486	- / 0.495	- / 0.691	- / 0.678	- / 0.896	- / 2.862	- / 17.773
Subtotal: Support	- / 14.899	- / 2.081	- / 1.276	- / 1.083	- / -	- / 1.083	- / 1.103	- / 1.288	- / 1.299	- / 1.622	- / 4.648	- / 29.299
Installation												
Installation 1 of 2: LAIRCM A Kit	- / 16.069	- / -	- / 2.292	- / 3.577	- / 0.000	- / 3.577	- / 3.720	- / 3.869	- / 4.024	- / 4.185	- / 43.402	- / 81.138
Installation 2 of 2: LAIRCM JABS	- / 0.774	- / -	- / 0.086	- / 0.404	- / 0.000	- / 0.404	- / 0.421	- / 0.292	- / 0.354	- / 0.368	- / 1.754	- / 4.453
Subtotal: Installation	- / 16.843	- / -	- / 2.378	- / 3.981	- / -	- / 3.981	- / 4.141	- / 4.161	- / 4.378	- / 4.553	- / 45.156	- / 85.591
Total												
Total Cost (Procurement + Support + Installation)	88.918	3.210	6.151	7.701	0.000	7.701	7.804	8.312	8.637	8.914	60.904	200.551

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 3 / Electronic Counter Measures (OSIP 020-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: LAIRCM A Kit																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin - LAIRCM															Manufacturer Location: Marietta, GA																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 26																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates		Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024				Mar 2025				Mar 2026					
Installation Information																															
Method of Implementation: Contractor Drive-In Modification:: Installation Name: LAIRCM A Kit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		16 / 16.069		- / -		2 / 2.292		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 18.361							
FY 2018		- / -		- / -		- / -		1 / 3.577		0 / 0.000		1 / 3.577		- / -		- / -		- / -		- / -		0 / 0.000		1 / 3.577							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		3 / 3.720		- / -		- / -		- / -		0 / 0.000		3 / 3.720							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 3.869		- / -		- / -		0 / 0.000		3 / 3.869							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 4.024		- / -		0 / 0.000		3 / 4.024							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 4.185		0 / 0.000		3 / 4.185							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 4.353		3 / 4.353							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 4.527		3 / 4.527							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		22 / 34.522		22 / 34.522							
Total		16 / 16.069		- / -		2 / 2.292		1 / 3.577		0 / 0.000		1 / 3.577		3 / 3.720		3 / 3.869		3 / 4.024		3 / 4.185		28 / 43.402		59 / 81.138							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	-	-	-	1	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	28	59
Out	16	-	-	-	-	-	1	1	-	-	-	1	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	28	59

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 3 / Electronic Counter Measures (OSIP 020-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: LAIRCM JABS																															
Manufacturer Information																															
Manufacturer Name: J.F Taylor -JABS															Manufacturer Location: Lexington Park, MD																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
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				Dec 2024					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: LAIRCM JABS																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		18 / 0.774		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.774					
FY 2018		- / -		- / -		2 / 0.086		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.086					
FY 2019		- / -		- / -		- / -		9 / 0.404		0 / 0.000		9 / 0.404		- / -		- / -		- / -		- / -		- / -		0 / 0.000		9 / 0.404					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		9 / 0.421		- / -		- / -		- / -		- / -		0 / 0.000		9 / 0.421					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.292		- / -		- / -		- / -		0 / 0.000		6 / 0.292					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.354		- / -		- / -		0 / 0.000		6 / 0.354					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		7 / 0.368		0 / 0.000		7 / 0.368					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.900		15 / 0.900					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.854		14 / 0.854					
Total		18 / 0.774		- / -		2 / 0.086		9 / 0.404		0 / 0.000		9 / 0.404		9 / 0.421		6 / 0.292		6 / 0.354		7 / 0.368		29 / 1.754		86 / 4.453							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	-	-	-	-	2	-	-	-	3	3	3	-	3	3	3	-	2	2	2	-	2	2	2	-	3	3	1	-	29	86
Out	18	-	-	-	-	-	2	-	-	-	3	3	3	-	3	3	3	-	2	2	2	-	2	2	2	-	3	3	1	29	86
Footnotes:																															
⁽⁵⁾ Aircraft equipped with A Kits can operate with or without B Kits. Install cost increase is due to insufficient organic capacity requiring commercial production.																															
⁽⁶⁾ DoN LAIRCM modified aircraft require a JABS kit installed prior to flight. Qty objective of 86 JABS kits is due to providing JABS kits to all KC-130J aircraft. DoN LAIRCM will be cut into the production line at aircraft 60, but JABS will not be cut into the production line.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 4 / Technical Insertion (OSIP 019-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	21.586	40.338	37.244	58.254	0.000	58.254	74.943	69.737	71.777	69.682	60.142	503.703
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	21.586	40.338	37.244	58.254	0.000	58.254	74.943	69.737	71.777	69.682	60.142	503.703
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	21.586	40.338	37.244	58.254	0.000	58.254	74.943	69.737	71.777	69.682	60.142	503.703
<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: DESCRIPTION/JUSTIFICATION: Technical Insertion provides for the incorporation and/or Tactical Demonstration (TACDEMO) of new or updated technologies to support safety, reliability, supportability, obsolescence, deficiency correction, mandated modifications, commonality, Digital Interoperability (DI), Electronic Warfare (EW), interoperability, C/KC-130 unique mission planning requirements, or affordability of the C/KC-130 platform. Technical Insertion updates support those technology initiatives that apply to aircraft avionics, navigation, communications,transponders, sensors, transmitters, antennae, mission computers and associated systems, electronic mission systems, C/KC-130 unique mission planning requirements or other electronic aircraft systems. Current modifications include: KC-130J Block Upgrade 8.1, which includes Communication Navigation Surveillance System (CNS) Air Traffic Management (ATM) mandates, new Flight Management System (FMS), transponder and Mission Computer updates for Required Navigation Performance (RNP) and Area Navigation (RNAV) and Automatic Dependent Surveillance - Broadcast (ADS-B) Out, safety improvements Improved Intercom System (ICS) Portable Audio (PA) System and enhanced covert lighting, deficiency correction Telecommunications Electronics Material Protected from Emanating Spurious Transmissions (TEMPEST) compliance, and DI updates (Mode 5 Identification Friend and Foe (IFF) and Link 16). Unique C/KC-130 mission planning requirement CAT 5.0 and Flight Performance Model (FPM) Take-off and Landing Data (TOLD) certification. Planned future modifications: Capability Management Upgrade (CMU) with Flight Management System (FMS) performance enhancements to ensure future mission readiness of the KC-130J fleet, Software Reprogrammable Payload (SRP), the Blue Force Tracker (BFT), Blue Force Situational Awareness (BFSA) initiative, and Ku Band Satellite System (Kuss) Beyond Line of Sight (BLOS) to support DI within the Marine Air Ground Task Force (MAGTF) and across the services. Unique C/KC-130 mission planning requirements including map and communication tools. Development of tablet enabled applications such as Electronic Take-off and Landing Data (ETOLD), Weight and Balance (W&B), and FPM planning. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Block 8.1 upgrade consists of 59 kits and installs starting in FY17 and completing beyond the FYDP.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 4 / Technical Insertion (OSIP 019-14)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: KC-130T/J				Modification Type: Safety / Reliability / Obsolescence				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) A Kit 7.0/8.1 Block Upgrade - NonOrganic Installation 1 of 2	- / -	5 / 7.545	9 / 13.989	7 / 11.099	- / -	7 / 11.099	9 / 14.697	9 / 15.138	9 / 15.592	9 / 16.060	- / -	57 / 94.120	
1.1.2) A Kit ADS-B Out - NonOrganic Installation 2 of 2	53 / 0.134	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 0.134	
1.2.1) Installation Kit N/R Block Upgrade - Organic ^(*)	- / 2.163	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.163	
2.1.1) Block 7.08/8.1 GFE - Organic ^{(*) (7)}	- / -	- / -	- / 2.707	- / 8.458	- / -	- / 8.458	- / 6.341	- / 6.775	- / 2.546	- / 5.114	- / -	- / 31.941	
2.1.2) B Kit 7.0/8.1 Block Upgrade - Organic ^(*)	- / -	5 / 11.734	9 / 18.327	7 / 17.548	- / -	7 / 17.548	9 / 23.239	9 / 23.936	9 / 24.654	9 / 25.394	- / -	57 / 144.832	
2.2.1) ADS-B Out NRE - Organic ^(*)	- / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.005	
2.2.2) Installation Kit N/R Block Upgrade - Organic ^(*)	- / 8.240	- / 6.331	- / 0.127	- / 0.300	- / -	- / 0.300	- / -	- / -	- / -	- / -	- / -	- / 14.998	
Subtotal: Procurement	- / 10.542	- / 25.610	- / 35.150	- / 37.405	- / -	- / 37.405	- / 44.277	- / 45.849	- / 42.792	- / 46.568	- / 0.000	- / 288.193	
Support													
3.2) Data Block Upgrade	- / 0.810	- / 0.810	- / -	- / 0.241	- / -	- / 0.241	- / 0.225	- / 0.212	- / 0.215	- / 0.205	- / 0.400	- / 3.118	
3.3) Training Equipment Block Upgrade	- / 6.500	- / 9.983	- / -	- / 8.500	- / -	- / 8.500	- / 9.287	- / 3.675	- / 6.382	- / -	- / -	- / 44.327	
3.4) Support Equipment Block Upgrade	- / 0.125	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.125	
3.5) ILS Block Upgrade	- / 0.967	- / 0.990	- / 0.915	- / 0.979	- / -	- / 0.979	- / 1.028	- / 1.038	- / 1.017	- / 0.997	- / 1.794	- / 9.725	
3.6) ILS ADS-B Out	- / 0.354	- / 0.189	- / 0.165	- / 0.149	- / -	- / 0.149	- / -	- / -	- / -	- / -	- / -	- / 0.857	
3.7) Other Support Block Upgrade	- / 1.442	- / 0.827	- / 0.759	- / 0.799	- / -	- / 0.799	- / 0.823	- / 0.848	- / 0.865	- / 0.882	- / 2.003	- / 9.248	
3.8) Other Support ADS-B Out	- / 0.846	- / 0.339	- / 0.255	- / 0.185	- / -	- / 0.185	- / -	- / -	- / -	- / -	- / -	- / 1.625	
3.9) Interim Contractor Support Block Upgrade	- / -	- / -	- / -	- / 1.246	- / -	- / 1.246	- / 1.370	- / 1.378	- / 0.735	- / 0.271	- / 0.244	- / 5.244	
Subtotal: Support	- / 11.044	- / 13.138	- / 2.094	- / 12.099	- / -	- / 12.099	- / 12.733	- / 7.151	- / 9.214	- / 2.355	- / 4.441	- / 74.269	
Installation													
Installation 1 of 2: A Kit 7.0/8.1 Block Upgrade	- / -	- / -	- / -	- / 8.750	- / 0.000	- / 8.750	- / 17.933	- / 16.737	- / 19.771	- / 20.759	- / 55.701	- / 139.651	
Installation 2 of 2: A Kit ADS-B Out	- / -	- / 1.590	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.590	
Subtotal: Installation	- / 0.000	- / 1.590	- / -	- / 8.750	- / -	- / 8.750	- / 17.933	- / 16.737	- / 19.771	- / 20.759	- / 55.701	- / 141.241	
Total													
Total Cost (Procurement + Support + Installation)	21.586	40.338	37.244	58.254	0.000	58.254	74.943	69.737	71.777	69.682	60.142	503.703	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0560 / C-130 Series											Modification Number / Title: 4 / Technical Insertion (OSIP 019-14)										
ID Code (A=Service Ready, B=Not Service Ready) :																MDAP/MAIS Code:																
Installation 1 of 2: A Kit 7.0/8.1 Block Upgrade																																
Manufacturer Information																																
Manufacturer Name: Lockheed Martin - Block Upgrade														Manufacturer Location: Greenville, SC																		
Administrative Leadtime <i>(in Months)</i> : 4														Production Leadtime <i>(in Months)</i> : 24																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates		Feb 2018				Feb 2019				Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024						
Delivery Dates		Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024				Feb 2025				Feb 2026						
Installation Information																																
Method of Implementation: Contractor Drive-In Mod:: Installation Name: A Kit 7.0/8.1 Block Upgrade																																
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		5 / 8.750		0 / 0.000		5 / 8.750		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 8.750							
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		9 / 17.933		- / -		- / -		- / -		- / -		0 / 0.000		9 / 17.933							
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		7 / 16.737		- / -		- / -		- / -		0 / 0.000		7 / 16.737							
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 19.771		- / -		- / -		0 / 0.000		9 / 19.771							
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 20.759		0 / 13.145		9 / 33.904		9 / 33.904							
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 21.278		9 / 21.278							
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 21.278		9 / 21.278							
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -	- / -		- / -		5 / 8.750		0 / 0.000		5 / 8.750		9 / 17.933		7 / 16.737		9 / 19.771		9 / 20.759		18 / 55.701		57 / 139.651		57 / 139.651							
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	3	3	3	-	3	2	2	-	3	3	3	-	3	3	3	18	57	
Out	-	-	-	-	-	-	-	-	-	-	-	-	2	2	1	-	3	3	3	-	3	2	2	-	3	3	3	3	3	21	57	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0560 / C-130 Series										Modification Number / Title: 4 / Technical Insertion (OSIP 019-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: A Kit ADS-B Out																															
Manufacturer Information																															
Manufacturer Name: D.T. Brown Inc															Manufacturer Location: Bohemia, NY																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 4																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: A Kit ADS-B Out																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		53 / 1.590		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		53 / 1.590					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		53 / 1.590		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		53 / 1.590					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	15	14	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
Out	-	-	15	14	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53
Footnotes: ⁽⁷⁾ Block Upgrade Modifications require various GFE to include STAR IX Mission Computers (MC), APX-119's, and Multi Information Distribution System (MIDS)/Joint Tactical Radio System (JTRS).																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series				Modification Number / Title: 5 / Safety/Obsolescence Upgrades (OSIP 015-17)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1.878	0.033	0.087	2.685	0.000	2.685	2.175	1.759	1.789	1.845	6.469	18.720
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1.878	0.033	0.087	2.685	0.000	2.685	2.175	1.759	1.789	1.845	6.469	18.720
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1.878	0.033	0.087	2.685	0.000	2.685	2.175	1.759	1.789	1.845	6.469	18.720
<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: DESCRIPTION/JUSTIFICATION: This line item funds modifications to Navy C/KC-130 aircraft. To ensure preservation of Marine Air Ground Task Force (MAGTF) Assault Support and Navy-Unique Fleet Essential Aircraft capabilities world-wide, this Safety, Reliability, Readiness and Obsolescence Improvement OSIP provides funding for issues that adversely affect aircraft safety, reliability and/or availability. Applicable areas include Power and Propulsion, Airframes and Structures, Safety and Life Support, Electrical Power, Readiness Initiatives and Survivability. This OSIP provides resources to correct such issues via Engineering Change Proposal (ECP) and other applicable efforts by modifying, improving, and upgrading aircraft structural safety and reliability. Modifications include: Airframe Structural Upgrades such as Flight Controls Surfaces, Forward Fuselage, Aft Fuselage, Inner/Outer Wing, Critical Structures; and Aircraft Subsystem Upgrades, such as Electrical, Hydraulic, Environmental Control Systems (ECS), Fuel, Launch and Recovery, Critical Structures, Mechanical, Secondary Power, and Fire Suppression Systems. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The current KC-130 aircraft do not have crashworthy observer seats in the cargo compartment required for safe operations in the tactical environment. The observer seats will provide increased crash attenuation, mission endurance, and restraint systems. The observer seats are Commercial Off The Shelf (COTS) items and are currently being installed in USAF C-130 Aircraft. Planned material solution is being updated to better meet USMC requirements. Current Inter-Communication System (ICS) system is a hardwire solution that impedes the aircrews' ability to carry out critical mission sets. A wireless ICS system will provide safer, unrestricted mobility for crew members to perform critical missions such as Aerial Cargo Delivery, ground and in-flight refueling. In addition, a wireless ICS facilitates crew members egress in the event of an emergency. The legacy 3,600 gallon fuel tanks in the cargo compartment need to be modified to fit the KC-130J due to obsolete components that are not compatible with the new KC-130J. Planned Engineering Change Proposals (ECP) for reliability are carbon brakes, corrosion control, and engine upgrades. Additionally, night vision goggles are being upgraded to white phosphorous as a safety improvement to the degraded visual environment.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series						Modification Number / Title: 5 / Safety/Obsolescence Upgrades (OSIP 015-17)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: KC-130J/T				Modification Type: Safety / Reliability / Obsolescence				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> Safety/Obsolescence Upgrades (OSIP 015-17)													
B Kits													
Recurring													
2.1.1) Archive - Organic	- / 1.654	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.654	
2.1.2) KC-130J Observer Seat B Kit - Organic	- / -	- / -	- / -	24 / 2.183	- / -	24 / 2.183	18 / 1.712	15 / 1.372	15 / 1.414	16 / 1.508	56 / 5.645	144 / 13.834	
<i>Subtotal: Recurring</i>	- / 1.654	- / -	- / -	- / 2.183	- / -	- / 2.183	- / 1.712	- / 1.372	- / 1.414	- / 1.508	- / 5.645	- / 15.488	
<i>Subtotal: Safety/Obsolescence Upgrades (OSIP 015-17)</i>	- / 1.654	- / -	- / -	24 / 2.183	- / -	24 / 2.183	18 / 1.712	15 / 1.372	15 / 1.414	16 / 1.508	56 / 5.645	144 / 15.488	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.654	- / -	- / -	- / 2.183	- / -	- / 2.183	- / 1.712	- / 1.372	- / 1.414	- / 1.508	- / 5.645	- / 15.488	
Support (All Modification Items)													
3.2) KC-130J Observer Seat Support Equipment	- / -	- / -	- / 0.087	- / 0.053	- / -	- / 0.053	- / 0.024	- / -	- / -	- / -	- / -	- / 0.164	
3.4) KC-130J Observer Seat ILS	- / 0.107	- / -	- / -	- / 0.233	- / -	- / 0.233	- / 0.227	- / 0.196	- / 0.195	- / 0.181	- / 0.429	- / 1.568	
3.5) KC-130J Observer Seat Other Support	- / 0.117	- / 0.033	- / -	- / 0.216	- / -	- / 0.216	- / 0.212	- / 0.191	- / 0.180	- / 0.156	- / 0.395	- / 1.500	
<i>Subtotal: Support</i>	- / 0.224	- / 0.033	- / 0.087	- / 0.502	- / -	- / 0.502	- / 0.463	- / 0.387	- / 0.375	- / 0.337	- / 0.824	- / 3.232	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	1.878	0.033	0.087	2.685	0.000	2.685	2.175	1.759	1.789	1.845	6.469	18.720	

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LI 0560 - C-130 Series
Navy

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 6 / NP2000 (OSIP 012-18)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	121.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	121.000
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	121.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	121.000
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	121.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	121.000
<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: DESCRIPTION/JUSTIFICATION: The NP2000 is an eight bladed propeller system that uses a modular hydraulic control system similar to the existing 54H60-111 propeller. The propeller blades are composite. The NP2000 uses existing Electronic Propeller Control System (EPCS) components with slight modifications required. The purpose of this modification is to support rapidly returning the C/KC-130T fleet to service and addressing the top readiness degrader for the legacy C/KC-130T aircraft. As a result of the C/KC-130T Red Stripe, the limited availability of 54H60-111 propellers has grounded most of the C/ KC-130T fleet since Sep 2017. Modifying C/KC-130T aircraft with NP2000 reduces the demand on available 54H60-111 propellers and increases readiness of the Navy C-130 fleet. DEVELOPMENT MILESTONES/MAJOR DEVELOPMENTAL MILESTONES: The NP2000 Modification is a Congressional Add program. The program is leveraging an existing propeller solution and the integration and testing performed by the USAF to integrate NP2000 into their fleet. NP2000 is a Turnkey effort that is contracted through NATO. The prototype and validation aircraft were rapidly modified and delivered to the Fleet in September 2018. Installations will continue through FY20.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0560 / C-130 Series					Modification Number / Title: 6 / NP2000 (OSIP 012-18)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: C/KC-130T				Modification Type: Safety				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> NP2000 (OSIP 012-18)													
B Kits													
Recurring													
2.1.1) NP2000 B Kit - Organic ⁽⁸⁾	- / -	24 / 91.618	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 91.618	
<i>Subtotal: Recurring</i>	- / 0.000	- / 91.618	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 91.618	
Non-Recurring													
2.2.1) NP2000 B Kit N/R - Organic ⁽⁹⁾	- / -	- / 10.716	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.716	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / 10.716	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 10.716	
<i>Subtotal: NP2000 (OSIP 012-18)</i>	- / -	24 / 102.334	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 102.334	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 102.334	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 102.334	
Support (All Modification Items)													
3.1) Data	- / -	- / 1.173	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.173	
3.2) Training Equipment	- / -	- / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.000	
3.3) Support Equipment	- / -	- / 3.351	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.351	
3.4) ILS	- / -	- / 4.463	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.463	
3.5) Other Support	- / -	- / 4.679	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.679	
<i>Subtotal: Support</i>	- / 0.000	- / 18.666	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 18.666	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	121.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	121.000	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0560 / C-130 Series	Modification Number / Title: 6 / NP2000 (OSIP 012-18)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: NP2000 (OSIP 012-18)		
Footnotes: ⁽⁸⁾ NP2000 is a Turnkey effort and is contracted through NATO. ⁽⁹⁾ Delta NRE is required for modification of AOU Aircraft and KC-130/-30 Aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0560 / C-130 Series	Modification Number / Title: 7 / Inactive OSIPs

[illegible]

Description:

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0560 / C-130 Series						Modification Number / Title: 7 / Inactive OSIPs			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 250.383	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 250.383	
<i>Subtotal: Procurement</i>	<i>- / 250.383</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 250.383</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	250.383	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	250.383	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0561 / Flt Elect Wrfr Supt Grp (FEWSG)

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
<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:

Installations are modifications to fleet systems based on the Adversary Electronic Attack Digital Radio Frequency Memory (DRFM) Roadmap for Filthy Badger classified program requirements. The program focuses on the Filthy Badger modification schedule and support of the required engineering and logistics to accomplish these upgrades.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0561 / Flt Elect Wrfr Supt Grp (FEWSG)				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83) (RELIABILITY, MAINTAINABILITY, CAPABILITY)				- / 100.055	- / 0.630	- / 0.597	- / 0.509	- / 0.000	- / 0.509
P-40	Total Gross/Weapon System Cost				- / 100.055	- / 0.630	- / 0.597	- / 0.509	- / 0.000	- / 0.509
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83) (RELIABILITY, MAINTAINABILITY, CAPABILITY)				- / 0.679	- / 0.729	- / 0.695	- / 0.709	- / 3.759	- / 108.362
P-40	Total Gross/Weapon System Cost				- / 0.679	- / 0.729	- / 0.695	- / 0.709	- / 3.759	- / 108.362
*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:

FY2020 funding requested to support the Filthy Badger modification schedule and the required engineering and logistics to accomplish these upgrades. The FY 2020 funding request was reduced by \$0.070 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0561 / Flt Elect Wrfr Supt Grp (FEWSG)					Modification Number / Title: 1 / AN/AST-6/9(V), AN/ULQ-21/24, AN/ ALQ-237, AN/ALQ-167 (OSIP 119-83)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362
(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: Installations are modifications to fleet systems based on the Adversary Electronic Attack DRFM Roadmap for Filthy Badger classified program requirements. The program focuses on the Filthy Badger modification schedule and support of the required engineering and logistics to accomplish these upgrades.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0561 / Flt Elect Wrfr Supt Grp (FEWSG)						Modification Number / Title: 1 / AN/AST-6/9(V), AN/ULQ-21/24, AN/ ALQ-237, AN/ALQ-167 (OSIP 119-83)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: NOT APPLICABLE				Modification Type: RELIABILITY, MAINTAINABILITY, CAPABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83)													
B Kits													
Recurring													
1.1.1) Install Equipment (B Kits) - Organic ⁽¹⁾	1,050 / 76.302	1 / 0.200	1 / 0.209	1 / 0.056	- / -	1 / 0.056	1 / 0.058	1 / 0.060	1 / 0.064	1 / 0.068	24 / 0.297	1,081 / 77.314	
Subtotal: Recurring	- / 76.302	- / 0.200	- / 0.209	- / 0.056	- / -	- / 0.056	- / 0.058	- / 0.060	- / 0.064	- / 0.068	- / 0.297	- / 77.314	
Non-Recurring													
1.2.1) Install Equipment N/R - Organic	- / 2.351	- / 0.040	- / 0.056	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.447	
Subtotal: Non-Recurring	- / 2.351	- / 0.040	- / 0.056	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.447	
Subtotal: AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83)	1,050 / 78.653	1 / 0.240	1 / 0.265	1 / 0.056	- / -	1 / 0.056	1 / 0.058	1 / 0.060	1 / 0.064	1 / 0.068	24 / 0.297	1,081 / 79.761	
Subtotal: Procurement, All Modification Items	- / 78.653	- / 0.240	- / 0.265	- / 0.056	- / -	- / 0.056	- / 0.058	- / 0.060	- / 0.064	- / 0.068	- / 0.297	- / 79.761	
Support (All Modification Items)													
2.1) Engineering Change Orders	- / 2.928	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.928	
2.2) Data	- / 0.406	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.406	
2.3) Training Equipment	3 / 4.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 4.815	
2.4) Support Equipment	- / 5.510	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.510	
2.5) ILS	- / 2.703	- / 0.200	- / 0.137	- / 0.248	- / -	- / 0.248	- / 0.276	- / 0.280	- / 0.296	- / 0.300	- / 1.448	- / 5.888	
2.6) Other Support	- / 5.040	- / 0.190	- / 0.195	- / 0.205	- / -	- / 0.205	- / 0.345	- / 0.389	- / 0.335	- / 0.341	- / 2.014	- / 9.054	
Subtotal: Support	- / 21.402	- / 0.390	- / 0.332	- / 0.453	- / -	- / 0.453	- / 0.621	- / 0.669	- / 0.631	- / 0.641	- / 3.462	- / 28.601	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	100.055	0.630	0.597	0.509	0.000	0.509	0.679	0.729	0.695	0.709	3.759	108.362	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0561 / Flt Elect Wrfr Supt Grp (FEWSG)	Modification Number / Title: 1 / AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: AN/AST-6/9(V), AN/ULQ-21/24, AN/ALQ-237, AN/ALQ-167 (OSIP 119-83)		
Footnotes: (1) FY 20 funding is required to maintain schedule of Filthy Badger classified program requirements for Digital Radio Frequency Memory (DRFM) configuration.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	298.614	10.075	8.932	8.767	0.000	8.767	9.287	10.586	10.570	10.840	58.601	426.272
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	298.614	10.075	8.932	8.767	0.000	8.767	9.287	10.586	10.570	10.840	58.601	426.272
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	298.614	10.075	8.932	8.767	0.000	8.767	9.287	10.586	10.570	10.840	58.601	426.272
<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:

This line item funds modifications to the following cargo and transport aircraft: C-40A, C-20G, C-37A, C-37B, C-26D, UC-35C, UC-35D, UC-12B, UC-12F, UC-12M, UC-12W, and RC-12M.

The C-40A Clipper, C-20G Gulfstream IV, C-37A Gulfstream V, C-37 B Gulfstream 550, UC-35C Cessna Ultra, UC-35D Cessna Encore are commercial twin jet transport aircraft that provide time-critical medium lift logistic support for the fleet combatant commanders. The C-40A can accommodate 121 passengers, or 8 pallets of cargo, or a combination configuration of 3 pallets and 70 passengers with a range of 3,400 nautical miles. The C-20G can accommodate 26 passengers or all pallets of cargo, or a combination of pallets and passengers with a range of 5,130 nautical miles. The C-37 provides worldwide executive transport to Secretary of the Navy, Chief of Naval Operations, Commandant of the Marine Corps, and Fleet Commanders. The UC-35 provides transport for high priority passenger/cargo missions with time, place or mission sensitive requirements. The UC-35 can accommodate 6 passengers or 1,200 pounds of cargo with a range of 1,300 nautical miles. The C-12 King Air and C-26 Metro variants are commercial twin turbo-prop aircraft that provide shorter-range light lift passenger/cargo transport and range control missions. The C-12 is capable of carrying 6 passengers or maximum cargo capacity of 2,850 pounds, with a range of 1,075 nautical miles. The C-26 is capable of carrying 19 passengers 1,300 nautical miles.

In FY15 - FY21 Block 3 aircraft modifications include Automatic Dependent Surveillance to DO260B (ADS-B) standards, Data Link recording capability that is tied to the Cockpit Voice Recorder, Expansion of data link systems/services based on global operational data-link mandates, integration of AN/APX-119 IFF Mode 5 with new digital control panel, Performance based navigation (RNAV/RNP), weather radar integration, L5 GLS capabilities, SATCOM upgrades required to meet new Iridium or International Maritime Satellite (INMARSAT) requirements. To combat jamming of commercial navigation systems incorporate anti jamming GPS antenna systems with M-code. FY21 begins prototype for Block 4 aircraft modifications through FY25 that include Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, Continue with incorporation of anti jam and anti spoofing M-Code GPS to ensure secure transmission of accurate military signals, New Navigation GPS receivers to meet ARINC 743B standards, and New High Definition Displays that meet electronic terrain and obstacle data requirements and next generation flight deck upgrades including Pro Line Fusion.

Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
NR	Quantity	-	-	-	-	-	-	-	-	-
	Total Obligation Authority	10.075	8.932	8.767	-	8.767	9.287	10.586	10.570	10.840
Total:	Quantity	-	-	-	-	-	-	-	-	-

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					
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										
Secondary Distribution		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024
Secondary Distribution	Total Obligation Authority	10.075	8.932	8.767	-	8.767	9.287	10.586	10.570	10.840

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86) (SAFETY/RELIABILITY)				- / 22.508	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 0.025
P-3a	2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04) (SAFETY/RELIABILITY)				- / 199.093	- / 9.785	- / 8.882	- / 8.717	- / 0.000	- / 8.717
P-3a	3 / Safety/Obsolescence Upgrades (013-16) (SAFETY/RELIABILITY)				- / 1.195	- / 0.265	- / 0.025	- / 0.025	- / 0.000	- / 0.025
P-3a	4 / RESERVE FORCES Inactive OSIPs (TBD)				- / 75.818	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 298.614	- / 10.075	- / 8.932	- / 8.767	- / 0.000	- / 8.767
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86) (SAFETY/RELIABILITY)				- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 22.683
P-3a	2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04) (SAFETY/RELIABILITY)				- / 9.237	- / 10.536	- / 10.520	- / 10.790	- / 58.601	- / 326.161
P-3a	3 / Safety/Obsolescence Upgrades (013-16) (SAFETY/RELIABILITY)				- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 1.610
P-3a	4 / RESERVE FORCES Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 75.818
P-40	Total Gross/Weapon System Cost				- / 9.287	- / 10.586	- / 10.570	- / 10.840	- / 58.601	- / 426.272
*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: Basis for FY20 budget request: provides funding to procure aircraft modifications for Communication, Navigation and Surveillance/Air Traffic Management (CNS/ATM) and Safety requirements for Cargo Transport Aircraft. The FY 20 funding request was reduced by \$0.165M to reflect contract services reform reduction and the Department of Navy's effort to support APN-5 rephasing due to executability constraints.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series				Modification Number / Title: 1 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	22.508	0.025	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	22.683
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	22.508	0.025	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	22.683
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	22.508	0.025	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	22.683
(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:

Federal Aviation Regulations require manufacturers of commercial aircraft and associated systems/subsystems to investigate discrepant conditions, failures, and potential safety problems reported by all operators. The results of these investigations with recommended corrective action are reviewed/authorized by Federal Aviation Administration (FAA) designated representatives and provided to all operators as service bulletins. Each service bulletin is a complete technical directive that provides corrective change information or detailed modification instructions. To ensure safe, reliable, FAA/Navy certified aircraft and to provide a program that will assure continued life extension at minimum cost, the Navy must maintain configuration and integrity compatible with FAA certified commercial models by incorporation of applicable service bulletins. The incorporation of certain service bulletins also serves to preclude extensive repairs/repetitive inspections. Crew equipment requirements in accordance with FAA directives and/or Navy requirements will be incorporated to ensure maximum safety in case of emergency. Specific examples of systems that will require modification to conform to FAA Service Bulletins and Directives include Brakes, Landing Gear Systems, Flight Controls, Engine Modifications, Propeller Modifications, Airframe Modifications, Hydraulics, Electrical/Mechanical Systems & Components, Fuel Systems, Software Modifications/Upgrades, Fire Detection Systems, Interior Environmental Systems, Pressurization Systems, Oxygen Systems, Pilot-Static Systems and Smoke/Fire Detection Systems. Modifications budgeted in this Operational Safety and Improvement Program include the incorporation of Service Bulletins/Directives requirements into the C-40A, C-20G, C-37A, C-37B, C-26D, UC-35C, UC-35D UC-12B, UC-12F, UC-12M, UC-12W and RC-12M aircraft.

Development Status/Major Development Milestones: Service Bulletins are reviewed for possible incorporation on an as required basis. Prototype verification has been previously accomplished and approved by the FAA.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					Modification Number / Title: 1 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CARGO TRANSPORT AC SERIES					Modification Type: SAFETY/RELIABILITY					Related RDT&E PEs:			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)													
A Kits													
Recurring													
1.1.1) Tech Directive Implementation - Organic	- / 0.300	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.475	
1.1.2) Archived Cost Elements - Organic	- / 17.478	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.478	
Subtotal: Recurring	- / 17.778	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 17.953	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 2.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.832	
Subtotal: Non-Recurring	- / 2.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.832	
Subtotal: FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)	- / 20.610	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	- / 20.785	
Subtotal: Procurement, All Modification Items	- / 20.610	- / 0.025	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 20.785	
Support (All Modification Items)													
3.1) Engineering Change Orders	- / 0.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.360	
3.2) Data	- / 0.293	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.293	
3.3) Training Equipment	- / 0.206	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.206	
3.5) ILS	- / 0.016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.016	
3.6) Other Support	- / 0.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.816	
3.7) Interim Contractor Support	- / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.207	
Subtotal: Support	- / 1.898	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.898	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					Modification Number / Title: 1 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CARGO TRANSPORT AC SERIES					Modification Type: SAFETY/RELIABILITY					Related RDT&E PEs:			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	22.508	0.025	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	22.683	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series	Modification Number / Title: 1 / FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: FEDERAL AVIATION ADMINISTRATION (FAA) CONFIGURATION UPDATES RESERVE FORCES(OSIP 071-86)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series				Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	199.093	9.785	8.882	8.717	0.000	8.717	9.237	10.536	10.520	10.790	58.601	326.161
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	199.093	9.785	8.882	8.717	0.000	8.717	9.237	10.536	10.520	10.790	58.601	326.161
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	199.093	9.785	8.882	8.717	0.000	8.717	9.237	10.536	10.520	10.790	58.601	326.161
(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:

World-wide airspace congestion and communication bandwidth saturation has led the International Civil Aviation Organization to restructure the world-wide airspace structure to improve safety through a series of equipment and performance mandates implemented by regional authorities. The Type/Models/Series cited below will be required to comply with Communication, Navigation and Surveillance - Air Traffic Management (CNS-ATM) mandates to retain the Navy's capability to operate these aircraft worldwide. Failure to comply with these time-phased mandates will result in being denied access to high-volume airspace (routing and altitudes) and airfields, and result in circuitous routing and sub optimal altitudes. Required modifications to meet these CNS-ATM mandates are being implemented on post production aircraft as capabilities listed in the third paragraph.

To minimize the impact of successive modifications and maximize aircraft availability, a block upgrade approach has been taken during this budget submit. Block upgrades have been prioritized and phased to meet regional mandates just in time to ensure that commercial CNS-ATM solutions are available off the shelf to minimize non-reoccurring engineering associated with Federal Aviation Administration supplemental type certification. In order to incorporate CNS-ATM mandates several older aircraft (C-35C, all C-26 and C-12) required the installation of a digital flight management and communication system.

CNS-ATM capabilities associated with each Block Upgrade are listed below:

C-26D: Block 2 - Install Flight Management System Upgrade, Pro Line 21, Wide Area Augmentation System (WAAS), Traffic Collision Avoidance System (TCAS 7.1), and provisions for Addressing and Reporting System (ACARS), Air Traffic Service (ATS) Facilities Notification. Block 3 - CPDLC and ADS-C datalink, CMU, add VDL-2 and SATCOM capability (Iridium or INMARSAT) and services, Automatic Dependent Surveillance to DO260B (ADS-B) standards, AN/APX-119 IFF Mode 5 with new digital control panel, RNAV/RNP, and L5 GLS Installs. Block 4 - Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, New Navigation GPS receivers to meet ARINC 743B standards and New High Definition Displays that meet electronic terrain and obstacle data requirements, Next generation Flight deck upgrades, to include Pro Line Fusion.

C-40A: Block 3 - Upgrade SATCOM capability (Iridium or INMARSAT) and services to meet new I4 requirements; Automatic Dependent Surveillance to DO260B standards, Data Link recording enhancements, AN/APX-119 IFF Mode 5 with new digital control panel, Performance based navigation (RNAV/RNP), weather radar enhancement and L5 GLS Installs. Protected Mode and Baseline Controller Pilot Data Link Communication (PM-CPDLC) and Automatic Dependent Surveillance-Contract (ADS-C) datalink, and VHF Data Link Mode 2. Block 4 - Updated Display Electronic Unit to raise to current standard, Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, incorporation of anti jam and anti spoofing M-Code GPS to ensure secure transmission of accurate military signals, New Navigation GPS receivers to meet ARINC 743B standards, and New High Definition Displays that meet electronic terrain and obstacle data requirements.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series	Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
C-37A/B: Block 3 - PM-CPDLC, ADS-C datalink, VHF Data Link Mode 2, SATCOM capability (Iridium or INMARSAT) and services, Automatic Dependent Surveillance to DO260B (ADS-B) standards, Data Link recording enhancements, and RNAV/RNP. Block 4 - Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, L5 GLS Installs, AN/APX-119 IFF Mode 5 with new digital control panel, incorporation of anti jam and anti spoofing M-Code GPS to ensure secure transmission of accurate military signals, New Navigation GPS receivers to meet ARINC 743B standards, and New High Definition Displays that meet electronic terrain and obstacle data requirements. UC-35C: Block 3- Upgrade UNS-1Espw for Controller Pilot Data Link Communication (CPDLC) and ADS-C datalink, SATCOM capability (Iridium or INMARSAT) and services, Dependent Surveillance to DO260B standards, Data Link recording enhancements, AN/APX-119 IFF Mode 5 with new digital control panel, and RNAV/RNP. Block 4 - L5 GLS Installs and Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, New Navigation GPS receivers to meet ARINC 743B standards, and New High Definition Displays that meet electronic terrain and obstacle data requirements. UC-35D: Block 3 - Upgrade UNS-1Espw for CPDLC and ADS-C datalink and Dependent Surveillance to DO260B standards, Data Link recording enhancements, Aircraft Survivability Equipment Gen3, SATCOM capability (Iridium or INMARSAT) and services, AN/APX-119 IFF Mode 5 with new digital control panel, RNAV/RNP, weather integration and Anti-jamming GPS antenna and M code. Block 4 - L5 GLS Installs and Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards, New Navigation GPS receivers to meet ARINC 743B standards and New High Definition Displays that meet electronic terrain and obstacle data requirements. C-20G: Block 3 - SATCOM capability (Iridium or INMARSAT) and services, Automatic Dependent Surveillance to DO260B standards, Data Link recording enhancements, AN/APX-119 IFF Mode 5 with new digital control panel, and RNAV/RNP. Block 4 - Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards and L5 GLS Installs, New Navigation GPS receivers to meet ARINC 743B standards and New High Definition Displays that meet electronic terrain and obstacle data requirements. C-12F/M: Block 3 - SATCOM capability (Iridium or INMARSAT) and services, Automatic Dependent Surveillance to DO260B standards, Data Link recording enhancements, AN/APX-119 IFF Mode 5 with new digital control panel, and RNAV/RNP. Block 4 - Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standards and L5 GLS Installs, New Navigation GPS receivers to meet ARINC 743B standards and New High Definition Displays that meet electronic terrain and obstacle data requirements. UC-12W: Block 3 - WAAS, SATCOM capability (Iridium or INMARSAT) and services, Automatic Dependent Surveillance to DO260B standards, Data Link recording enhancements, AN/APX-119 IFF Mode 5 with new digital control panel, CPDLC and ADS-C Data Link, CMU, add VDL-2 , RNAV/RNP, L5 GLS Installs and Anti-jamming GPS antenna and M code. Block 4 - Aircraft Flight Management System upgrades to meet FAA advanced RNP minimum performance standard, New Navigation GPS receivers to meet ARINC 743B standards and New High Definition Displays that meet electronic terrain and obstacle data requirements. Next generation Flight deck upgrades, to include Pro Line Fusion.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series						Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CARGO TRANSPORT AC SERIES			Modification Type: SAFETY/RELIABILITY					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Block 3 (C-37) - Organic - Organic ^(*)	- / -	1 / 0.113	4 / 0.859	4 / 0.080	- / -	4 / 0.080	- / -	- / -	- / -	- / -	- / -	9 / 1.052	
1.1.2) Block 3 (UC-35) - NonOrganic Installation 1 of 6	33 / 3.417	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 3.417	
1.1.8) Block 4 (UC-35) - NonOrganic Installation 1 of 6	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.300	2 / 0.740	5 / 1.050	- / -	6 / 2.461	14 / 4.551	
1.1.3) Block 3 (C-26) - NonOrganic Installation 2 of 6	- / -	6 / 1.263	- / -	- / -	- / -	- / -	1 / 0.650	- / -	- / -	- / -	- / -	7 / 1.913	
1.1.4) Block 3 (C-20) - Organic - Organic ^(*)	- / -	- / -	3 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	
1.1.5) Block 3 (C-12) - NonOrganic Installation 3 of 6	12 / 1.200	24 / 0.266	- / -	7 / 0.070	- / -	7 / 0.070	- / -	- / -	- / -	- / -	- / -	43 / 1.536	
1.1.10) Block 4 (C-12) - NonOrganic Installation 3 of 6	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.204	- / -	- / -	1 / 0.300	6 / 1.800	9 / 3.304	
1.1.6) Block 4 (C-40) - NonOrganic Installation 4 of 6	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	5 / 2.880	4 / 1.280	- / -	15 / 2.625	26 / 7.085	
2.1.3) Block 3 C-40 - NonOrganic Installation 4 of 6	- / -	4 / 2.051	17 / 3.087	7 / 1.624	- / -	7 / 1.624	- / -	- / -	- / -	- / -	- / -	28 / 6.762	
1.1.7) Block 4 (C-37) - NonOrganic Installation 5 of 6	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.300	1 / 0.450	- / -	- / -	9 / 1.980	11 / 2.730	
1.1.9) Block 4 (C-20) - NonOrganic Installation 6 of 6	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.300	- / -	- / -	- / -	3 / 1.000	4 / 1.300	
1.1.11) Archive Mods - Organic ^(*)	- / 78.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 78.082	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 33.849	- / 0.275	- / 0.351	- / 0.145	- / -	- / 0.145	- / 2.468	- / 2.170	- / -	- / -	- / 6.275	- / 45.533	
2.1.1) Archived Mods - Organic ^(*)	- / 44.754	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 44.754	
2.1.2) Block 3 - Organic ^(*)	22 / 4.527	3 / 0.500	5 / 0.800	6 / 0.291	- / -	6 / 0.291	7 / 1.169	- / -	- / -	- / -	6 / 1.167	49 / 8.454	
2.1.4) Block 4 - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.770	9 / 5.076	11 / 7.821	17 / 14.280	45 / 27.947	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 3.994	- / -	- / 0.300	- / -	- / -	- / -	- / -	- / 1.100	- / 0.500	- / 1.420	- / 0.655	- / 7.969	
Subtotal: Procurement	- / 169.823	- / 4.468	- / 5.697	- / 2.210	- / -	- / 2.210	- / 6.691	- / 8.110	- / 7.906	- / 9.541	- / 32.243	- / 246.689	
Support													
3.1) Engineering Change Orders	- / 0.160	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.160	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series				Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)					
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: CARGO TRANSPORT AC SERIES				Modification Type: SAFETY/RELIABILITY				Related RDT&E PEs:					

Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
(*) Indicates the modification is being installed organically and no installation funds are required.	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
3.2) Data	- / 5.846	- / 0.331	- / 0.300	- / 0.138	- / -	- / 0.138	- / 0.126	- / 0.210	- / 0.173	- / 0.160	- / 2.473	- / 9.757
3.3) Training Equipment	- / 1.778	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.320	- / 0.217	- / 0.240	- / 1.821	- / 4.376
3.4) Support Equipment	- / 0.626	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.061	- / 1.687
3.5) ILS	- / 4.560	- / 0.155	- / 0.135	- / 0.126	- / -	- / 0.126	- / 0.120	- / 0.330	- / 0.344	- / 0.349	- / 1.893	- / 8.012
3.6) Other Support ⁽¹⁾	- / 12.434	- / 1.448	- / 1.280	- / 0.980	- / -	- / 0.980	- / 0.750	- / 0.566	- / 0.540	- / 0.350	- / 4.090	- / 22.438
<i>Subtotal: Support</i>	- / 25.404	- / 1.934	- / 1.715	- / 1.244	- / -	- / 1.244	- / 0.996	- / 1.426	- / 1.274	- / 1.099	- / 11.338	- / 46.430
Installation												
<i>Installation 1 of 6:</i> GRP: CNS/ATM UC-35	- / 2.360	- / 0.400	- / -	- / -	- / -	- / -	- / 0.125	- / 0.250	- / 0.450	- / -	- / 8.040	- / 11.625
<i>Installation 2 of 6:</i> GRP: CNS/ATM C-26	- / -	- / -	- / 0.656	- / 0.656	- / 0.000	- / 0.656	- / 0.325	- / -	- / -	- / -	- / 0.000	- / 1.637
<i>Installation 3 of 6:</i> GRP: CNS/ATM C-12	- / 1.506	- / -	- / 0.814	- / 0.607	- / 0.000	- / 0.607	- / 0.450	- / -	- / -	- / 0.150	- / 0.900	- / 4.427
<i>Installation 4 of 6:</i> GRP: CNS/ATM C-40A/C-9	- / -	- / 2.983	- / -	- / 4.000	- / 0.000	- / 4.000	- / 0.400	- / 0.625	- / 0.890	- / -	- / 3.450	- / 12.348
<i>Installation 5 of 6:</i> GRP: CNS/ATM C-37	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.125	- / 0.125	- / -	- / -	- / 2.180	- / 2.430
<i>Installation 6 of 6:</i> GRP: CNS/ATM C-20	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.125	- / -	- / -	- / -	- / 0.450	- / 0.575
<i>Subtotal: Installation</i>	- / 3.866	- / 3.383	- / 1.470	- / 5.263	- / -	- / 5.263	- / 1.550	- / 1.000	- / 1.340	- / 0.150	- / 15.020	- / 33.042
Total												
Total Cost (Procurement + Support + Installation)	199.093	9.785	8.882	8.717	0.000	8.717	9.237	10.536	10.520	10.790	58.601	326.161

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 6: GRP: CNS/ATM UC-35																															
Manufacturer Information																															
Manufacturer Name: M7 Aerospace UC-35															Manufacturer Location: San Antonio, TX																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2020				Dec 2021				Dec 2022									
Delivery Dates														Jan 2021				Jan 2022				Jan 2023									
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM UC-35																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		25 / 2.360		8 / 0.400		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		33 / 2.760							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		- / -		- / -		- / -		0 / 0.000		1 / 0.125							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.250		- / -		- / -		0 / 0.000		2 / 0.250							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.450		- / -		0 / 0.000		5 / 0.450							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 8.040		6 / 8.040							
Total		25 / 2.360		8 / 0.400		- / -		- / -		- / -		- / -		1 / 0.125		2 / 0.250		5 / 0.450		- / -		6 / 8.040		47 / 11.625							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	3	3	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	2	2	1	-	-	-	-	6	47
Out	25	-	2	3	3	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	2	2	1	-	-	-	-	6	47

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 6: GRP: CNS/ATM C-26																															
Manufacturer Information																															
Manufacturer Name: Rockwell Collins															Manufacturer Location: Cedar Rapids, IA																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2018												Nov 2020																	
Delivery Dates		Jul 2019												Jul 2021																	
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM C-26																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		3 / 0.656		3 / 0.656		0 / 0.000		3 / 0.656		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 1.312					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.325		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.325					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		3 / 0.656		3 / 0.656		0 / 0.000		3 / 0.656		1 / 0.325		- / -		- / -		- / -		- / -		0 / 0.000		7 / 1.637					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Out	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	7

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: GRP: CNS/ATM C-12																															
Manufacturer Information																															
Manufacturer Name: L-3 Vertex - C-12															Manufacturer Location: Madison, Mississippi																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2018								Nov 2020				Nov 2021												Nov 2024					
Delivery Dates		Feb 2019								Feb 2020				Feb 2021												Feb 2024					
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM C-12																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.506		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 1.506					
FY 2018		- / -		- / -		16 / 0.814		8 / 0.407		0 / 0.000		8 / 0.407		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 1.221					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		7 / 0.200		0 / 0.000		7 / 0.200		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.200					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.450		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.450					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.150		0 / 0.000					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.900					
Total		12 / 1.506		- / -		16 / 0.814		15 / 0.607		0 / 0.000		15 / 0.607		2 / 0.450		- / -		- / -		- / -		- / -		1 / 0.150		6 / 0.900					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	8	2	2	3	-	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	6	52
Out	12	-	-	-	-	-	-	8	8	8	2	2	3	-	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	6	52

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 6: GRP: CNS/ATM C-40A/C-9																															
Manufacturer Information																															
Manufacturer Name: Various - C-40/C-9															Manufacturer Location: Various																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Apr 2019				Apr 2020				Apr 2021				Apr 2022				Apr 2023									
Delivery Dates		Jan 2018				Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023									
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM C-40A/C-9																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		4 / 2.983		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 2.983					
FY 2019		- / -		- / -		- / -		17 / 2.000		0 / 0.000		17 / 2.000		- / -		- / -		- / -		- / -		- / -		0 / 0.000		17 / 2.000					
FY 2020		- / -		- / -		- / -		7 / 2.000		0 / 0.000		7 / 2.000		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 2.000					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.400		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.400					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.625		- / -		- / -		- / -		0 / 0.000		5 / 0.625					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.890		- / -		- / -		0 / 0.000		4 / 0.890					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 3.450		15 / 3.450					
Total		- / -		4 / 2.983		- / -		24 / 4.000		0 / 0.000		24 / 4.000		2 / 0.400		5 / 0.625		4 / 0.890		- / -		15 / 3.450		54 / 12.348							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	-	-	-	-	5	6	9	4	1	1	-	-	5	-	-	-	2	2	-	-	-	-	-	-	15	54
Out	-	-	1	2	1	-	-	-	-	5	6	9	4	1	1	-	-	5	-	-	-	2	2	-	-	-	-	-	-	15	54

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 6: GRP: CNS/ATM C-37																															
Manufacturer Information																															
Manufacturer Name: Gulfstream-C-37															Manufacturer Location: Savannah, GA																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2020				Dec 2021													
Delivery Dates														Mar 2021				Mar 2022													
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM C-37																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		- / -		- / -		- / -		0 / 0.000		1 / 0.125					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		- / -		- / -		0 / 0.000		1 / 0.125					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 2.180		9 / 2.180					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		1 / 0.125		- / -		- / -		9 / 2.180		11 / 2.430					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	9	11
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	9	11

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series										Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 6: GRP: CNS/ATM C-20																															
Manufacturer Information																															
Manufacturer Name: Gulfstream-C-20															Manufacturer Location: Savannah, GA																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2020																	
Delivery Dates														Feb 2021																	
Installation Information																															
Method of Implementation: Depot Contractor:: Installation Name: CNS/ATM C-20																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		- / -		- / -		- / -		0 / 0.000		1 / 0.125					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.450		3 / 0.450					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.125		- / -		- / -		- / -		3 / 0.450		4 / 0.575					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4
Footnotes:																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series	Modification Number / Title: 2 / COMMUNICATION, NAVIGATION AND SURVEILLANCE - AIR TRAFFIC MANAGEMENT RESERVE FORCES (OSIP 012-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(1) Increase due to engineering support costs to comply with meeting FAA mandates for CNS/ATM, ADS-B, ADS-C, new navigation GPS receivers to meet ARINC 743B standards, and new high definition displays that meet electronic terrain and obstacle data requirements.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series				Modification Number / Title: 3 / Safety/Obsolescence Upgrades (013-16)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1.195	0.265	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	1.610
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1.195	0.265	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	1.610
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1.195	0.265	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	1.610
<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:

This line item funds modifications to the following cargo and transport airlift aircraft: C-40A, C-20G, C-37A/B, UC-35C/D, C-26D, UC-12B/F/M/W, RC-12M. To ensure preservation of the airlift capabilities world-wide, this Safety, Reliability and Obsolescence Improvement OSIP provides funding to correct deficiencies that adversely affect aircraft safety, reliability and/or availability; specifically deficiencies that are not corrected through the existing FAA commercial service bulletin process because they are peculiar systems/equipment to the Navy. Navy peculiar aircraft systems include but are not limited to navigation systems, communication, survivability equipment, and cargo/passenger loading and carriage systems.

Modifications will support all readiness, obsolescent, and safety of flight improvements to existing Navy peculiar aircraft systems.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					Modification Number / Title: 3 / Safety/Obsolescence Upgrades (013-16)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CARGO TRANSPORT AC SERIES					Modification Type: SAFETY/RELIABILITY					Related RDT&E PEs:			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> Safety/Obsolescence Upgrades (013-16)													
A Kits													
Recurring													
1.1.1) AirStair - Organic	5 / 0.084	10 / 0.265	1 / 0.025	1 / 0.025	- / -	1 / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	17 / 0.499	
<i>Subtotal: Recurring</i>	- / 0.084	- / 0.265	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 0.499	
Non-Recurring													
1.2.1) A Kit Non-Recurring - Organic	3 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.900	
<i>Subtotal: Non-Recurring</i>	- / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.900	
<i>Subtotal: Safety/Obsolescence Upgrades (013-16)</i>	8 / 0.984	10 / 0.265	1 / 0.025	1 / 0.025	- / -	1 / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / -	20 / 1.399	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.984	- / 0.265	- / 0.025	- / 0.025	- / -	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.025	- / 0.000	- / 1.399	
Support (All Modification Items)													
3.6) Other Support	- / 0.211	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.211	
<i>Subtotal: Support</i>	- / 0.211	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.211	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	1.195	0.265	0.025	0.025	0.000	0.025	0.025	0.025	0.025	0.025	0.000	1.610	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series	Modification Number / Title: 3 / Safety/Obsolescence Upgrades (013-16)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Safety/Obsolescence Upgrades (013-16)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series						Modification Number / Title: 4 / RESERVE FORCES Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	75.818	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	75.818
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	75.818	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	75.818
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	75.818	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	75.818
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0562 / Cargo/Transport Acft Series					Modification Number / Title: 4 / RESERVE FORCES Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 75.818	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 75.818	
Subtotal: Procurement	- / 75.818	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 75.818	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	75.818	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	75.818	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0564 / E-6 Series					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: 0101402N				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,475.130	194.391	164.511	169.827	0.000	169.827	189.593	156.462	126.517	129.447	314.594	2,920.472
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,475.130	194.391	164.511	169.827	0.000	169.827	189.593	156.462	126.517	129.447	314.594	2,920.472
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,475.130	194.391	164.511	169.827	0.000	169.827	189.593	156.462	126.517	129.447	314.594	2,920.472
<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: This line item funds modifications to the E-6 Mercury aircraft to improve mission capability and readiness. All sixteen (16) aircraft, unless otherwise noted in the E-6 fleet will receive each modification. The E-6 is a manned airborne communications platform designed to provide a survivable, enduring, and reliable airborne Command and Control Communications capability in support of the President, Secretary of Defense, and United States strategic and non-strategic forces. -Safety Deficiencies (OSIP 008-02) corrects high risk aircraft safety hazards to protect personnel and equipment enabling mission readiness. -Tech Insertion (OSIP 003-04) corrects aircraft obsolescence, supportability, weight management and interoperability deficiencies through new technology insertion enabling mission readiness and mandate compliance. -Service Life Extension Program (OSIP 003-07) extends the service life of the aircraft to 2038+ through airframe strengthening and structural data recording and analysis. -Communications Upgrade (OSIP 012-07) installs expanded aircraft digital communication paths and processing to improve airborne command post operations and modernizes direct over-the-horizon communications links to deployed strategic forces. -Block I (OSIP 008-10) corrects Airborne Command Post (ABNCP) operational test deficiencies to improve mission capability, readiness and legacy system obsolescence. -Multi-Role Tactical Common Data Link (OSIP 013-10) installs expanded aircraft communication bandwidth capability required to interoperate with United States Strategic Command's National Command and Control Architecture. -Auxiliary Power Unit (APU) (OSIP 002-12) corrects airborne command post operational test deficiencies by installing an improved APU to meet increased aircraft power requirements. -Family of Advanced Beyond-Line-of-Sight Terminals/Presidential and National Voice Conferencing (FAB-T/PNVC) (OSIP 014-14) replaces obsolete Military Strategic Tactical Relay terminals with improved FAB-T and replaces Secure Emergency Conferencing Network with PNVC.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0564 / E-6 Series
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0101402N
Line Item MDAP/MAIS Code: N/A		
-Mission Systems (OSIP 011-21) corrects mission systems obsolescence, supportability, and interoperability deficiencies through technology insertion of commercial and government off the shelf (COTs/GOTs) systems.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0564 / E-6 Series					
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0101402N				
Line Item MDAP/MAIS Code: N/A										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Safety Deficiencies (OSIP 008-02) (Safety/Reliability/Improvements)				- / 82.965	- / 4.240	- / 6.811	- / 11.017	- / 0.000	- / 11.017
P-3a	2 / Tech Insertion (OSIP 003-04) (Capability and Reliability Improvements)				- / 109.882	- / 5.921	- / 8.646	- / 20.467	- / 0.000	- / 20.467
P-3a	3 / Service Life Extension Program (SLEP) (OSIP 003-07) (Life Extension)				- / 109.479	- / 21.919	- / 8.015	- / 9.393	- / 0.000	- / 9.393
P-3a	4 / Communications Upgrade (OSIP 012-07) (Capability Improvements)				- / 278.843	- / 22.634	- / 66.037	- / 40.368	- / 0.000	- / 40.368
P-3a	5 / Block I (OSIP 008-10) (Capability Improvements)				- / 520.498	- / 26.773	- / 24.096	- / 0.000	- / 0.000	- / 0.000
P-3a	6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10) (Capability Improvements)				- / 209.292	- / 50.182	- / 13.914	- / 32.304	- / 0.000	- / 32.304
P-3a	7 / Auxiliary Power Unit (APU) (OSIP 002-12) (Capability Improvements)				- / 51.118	- / 13.103	- / 9.938	- / 6.945	- / 0.000	- / 6.945
P-3a	8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/PNVC)(OSIP 014-14) (Capability and Reliability Improvements)				- / 82.037	- / 49.619	- / 27.054	- / 49.333	- / 0.000	- / 49.333
P-3a	9 / Mission Systems (OSIP 014-21) (Capability Improvements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	10 / Inactive OSIPS (Inactive)				- / 31.016	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 1,475.130	- / 194.391	- / 164.511	- / 169.827	- / 0.000	- / 169.827
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Safety Deficiencies (OSIP 008-02) (Safety/Reliability/Improvements)				- / 11.749	- / 11.245	- / 9.361	- / 6.591	- / 3.473	- / 147.452
P-3a	2 / Tech Insertion (OSIP 003-04) (Capability and Reliability Improvements)				- / 17.775	- / 14.418	- / 36.004	- / 68.890	- / 171.077	- / 453.080
P-3a	3 / Service Life Extension Program (SLEP) (OSIP 003-07) (Life Extension)				- / 17.969	- / 18.352	- / 5.307	- / 5.407	- / 6.203	- / 202.044
P-3a	4 / Communications Upgrade (OSIP 012-07) (Capability Improvements)				- / 30.138	- / 21.020	- / 20.739	- / 20.479	- / 18.382	- / 518.640
P-3a	5 / Block I (OSIP 008-10) (Capability Improvements)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 571.367
P-3a	6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10) (Capability Improvements)				- / 48.198	- / 42.635	- / 25.651	- / 0.000	- / 0.000	- / 422.176
P-3a	7 / Auxiliary Power Unit (APU) (OSIP 002-12) (Capability Improvements)				- / 12.375	- / 11.751	- / 9.160	- / 0.000	- / 0.000	- / 114.390
P-3a	8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/PNVC)(OSIP 014-14) (Capability and Reliability Improvements)				- / 40.407	- / 30.923	- / 17.149	- / 0.000	- / 0.000	- / 296.522

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0564 / E-6 Series				
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0101402N				
Line Item MDAP/MAIS Code: N/A										
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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	9 / Mission Systems (OSIP 014-21) (Capability Improvements)				- / 10.982	- / 6.118	- / 3.146	- / 28.080	- / 115.459	- / 163.785
P-3a	10 / Inactive OSIPS (Inactive)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 31.016
P-40	Total Gross/Weapon System Cost				- / 189.593	- / 156.462	- / 126.517	- / 129.447	- / 314.594	- / 2,920.472
*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 2020 funding request was increased by \$5.316 million due to Safety Deficiencies (OSIP 008-02) for Kapton Lower Lobe installations, Tech Insertion (OSIP 003-04) for Fuel Tank Sealant Upgrade installations, Service Life Extension program (SLEP) (OSIP 003-07) for Crash Survivable Flight Incident Recorder System(CSFIR) installation, Multi-Role Tactical Common Data Link (OSIP 013-10) installations, Auxiliary Power Unit (APU) (OSIP 002-12) installations, Family of Advanced Beyond-Line-of-Sight Terminals/Presidential and National Voice Conferencing (FAB-T/PNVC) (OSIP 014-14) installations. The FY 2020 funding request was reduced by \$7.769 million to account for the availability of prior year execution balances.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	82.965	4.240	6.811	11.017	0.000	11.017	11.749	11.245	9.361	6.591	3.473	147.452
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	82.965	4.240	6.811	11.017	0.000	11.017	11.749	11.245	9.361	6.591	3.473	147.452
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	82.965	4.240	6.811	11.017	0.000	11.017	11.749	11.245	9.361	6.591	3.473	147.452
<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: DESCRIPTION/JUSTIFICATION: The Operational Safety Improvement Program corrects safety hazards to protect personnel and equipment enabling mission readiness. The OSIP also addresses Federal agency directives, aging aircraft material condition, and emergent safety hazards generated by the operational environment. Modifications include, but not limited to: Fuel Quantity Indicator System (FQIS) modification, Kapton wiring replacement and other safety deficiencies that require correction. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FQIS kit buys PY-FY20; installations in PY-FY21. Aircraft Kapton NRE PY to beyond FYDP, buys and installs in PY to beyond FYDP. Kapton Lower Lobe, Wings, Engine Struts, and Tail are included in Kapton replacement efforts.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Safety/Reliability/Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) Kapton Wings A Kits - NonOrganic Installation 1 of 5	4 / 0.639	- / -	2 / 0.293	2 / 0.298	- / -	2 / 0.298	2 / 0.304	2 / 0.311	2 / 0.317	2 / 0.323	- / -	16 / 2.485
1.1.2) Kapton Engine Struts A Kits - NonOrganic Installation 2 of 5	5 / 1.480	- / -	1 / 0.312	2 / 0.637	- / -	2 / 0.637	2 / 0.650	2 / 0.663	2 / 0.676	2 / 0.690	- / -	16 / 5.108
1.1.3) Kapton Lower Lobe A Kits - NonOrganic ⁽¹⁾ Installation 3 of 5	2 / 0.338	- / -	3 / 1.070	4 / 1.455	- / -	4 / 1.455	4 / 1.485	3 / 1.136	- / -	- / -	- / -	16 / 5.484
1.1.4) Kapton Tail A Kits - NonOrganic Installation 4 of 5	- / -	- / -	2 / 0.640	3 / 0.977	- / -	3 / 0.977	2 / 0.663	2 / 0.675	2 / 0.687	2 / 0.700	3 / 1.068	16 / 5.410
1.1.5) FQIS A Kits - NonOrganic Installation 5 of 5	7 / 0.479	2 / 0.056	2 / 0.057	2 / 0.058	- / -	2 / 0.058	3 / 0.089	- / -	- / -	- / -	- / -	16 / 0.739
1.1.6) Archived ECPs - Organic ^(*)	112 / 17.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	112 / 17.803
1.2.1) Installation Kits N/R - Organic ^{(*) (2)}	- / 23.534	- / 2.326	- / 1.480	- / 1.955	- / -	- / 1.955	- / 1.446	- / 1.874	- / 1.912	- / 1.950	- / -	- / 36.477
2.1.1) FQIS B Kits - Organic ^(*)	8 / 0.018	1 / 0.021	2 / 0.043	3 / 0.066	- / -	3 / 0.066	2 / 0.045	- / -	- / -	- / -	- / -	16 / 0.193
2.1.2) Archived ECPs - Organic ^(*)	188 / 6.271	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	188 / 6.271
2.2.1) Installation Equipment N/R - NonOrganic ^(*)	- / 3.122	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.122
Subtotal: Procurement	- / 53.684	- / 2.403	- / 3.895	- / 5.446	- / -	- / 5.446	- / 4.682	- / 4.659	- / 3.592	- / 3.663	- / 1.068	- / 83.092
Support												
3.2) Data	- / 0.749	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.749
3.3) Training	- / 5.518	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.518
3.4) Support Equipment	- / 0.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.045
3.5) ILS	- / 0.471	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.471
3.6) Other Support ⁽³⁾	- / 20.646	- / 1.473	- / 1.530	- / 1.556	- / -	- / 1.556	- / 1.581	- / 1.612	- / 1.642	- / 1.620	- / -	- / 31.660
Subtotal: Support	- / 27.429	- / 1.473	- / 1.530	- / 1.556	- / -	- / 1.556	- / 1.581	- / 1.612	- / 1.642	- / 1.620	- / 0.000	- / 38.443
Installation												
Installation 1 of 5: Kapton Wings A Kits	- / 0.300	- / 0.244	- / 0.249	- / 0.254	- / 0.000	- / 0.254	- / 0.259	- / 0.264	- / 0.270	- / 0.275	- / 0.000	- / 2.115
Installation 2 of 5: Kapton Engine Struts A Kits	- / 0.133	- / -	- / 0.136	- / 0.138	- / 0.000	- / 0.138	- / 0.141	- / 0.144	- / 0.147	- / 0.150	- / 0.153	- / 1.142
Installation 3 of 5: Kapton Lower Lobe A Kits	- / 0.060	- / -	- / 0.876	- / 2.680	- / 0.000	- / 2.680	- / 3.644	- / 3.717	- / 2.844	- / -	- / 0.000	- / 13.821
Installation 4 of 5: Kapton Tail A Kits	- / -	- / -	- / -	- / 0.816	- / 0.000	- / 0.816	- / 1.248	- / 0.849	- / 0.866	- / 0.883	- / 2.252	- / 6.914
Installation 5 of 5: FQIS A Kits	- / 1.359	- / 0.120	- / 0.125	- / 0.127	- / 0.000	- / 0.127	- / 0.194	- / -	- / -	- / -	- / 0.000	- / 1.925
Subtotal: Installation	- / 1.852	- / 0.364	- / 1.386	- / 4.015	- / -	- / 4.015	- / 5.486	- / 4.974	- / 4.127	- / 1.308	- / 2.405	- / 25.917
Total												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0564 / E-6 Series						Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)			
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Safety/Reliability/Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	82.965	4.240	6.811	11.017	0.000	11.017	11.749	11.245	9.361	6.591	3.473	147.452

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 1 of 5: Kapton Wings A Kits																															
Manufacturer Information																															
Manufacturer Name: Kapton Wings/Grace Aerospace										Manufacturer Location: Long Island, NY																					
Administrative Leadtime (<i>in Months</i>): 3										Production Leadtime (<i>in Months</i>): 6																					
Dates		FY 2018		FY 2019		FY 2020		FY 2021		FY 2022		FY 2023		FY 2024																	
Contract Dates				Dec 2018		Dec 2019		Dec 2020		Dec 2021		Dec 2022		Dec 2023																	
Delivery Dates				Jun 2019		Jun 2020		Jun 2021		Jun 2022		Jun 2023		Jun 2024																	
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Kapton Wings A Kits																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 / 0.300	2 / 0.244	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	4 / 0.544																		
FY 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	2 / 0.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	2 / 0.249																		
FY 2020		- / -	- / -	- / -	2 / 0.254	0 / 0.000	2 / 0.254	- / -	- / -	- / -	- / -	0 / 0.000	2 / 0.254																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.259	- / -	- / -	- / -	0 / 0.000	2 / 0.259																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.264	- / -	- / -	0 / 0.000	2 / 0.264																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.270	- / -	0 / 0.000	2 / 0.270																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.275	0 / 0.000	2 / 0.275																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		2 / 0.300	2 / 0.244	2 / 0.249	2 / 0.254	0 / 0.000	2 / 0.254	2 / 0.259	2 / 0.264	2 / 0.270	2 / 0.275	0 / 0.000	16 / 2.115																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1	-	16
Out	2	-	-	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	2	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 5: Kapton Engine Struts A Kits																															
Manufacturer Information																															
Manufacturer Name: Kapton Struts/Grace Aerospace															Manufacturer Location: Long Island, NY																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates						Jun 2019				Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Kapton Engine Struts A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.133		- / -		2 / 0.136		1 / 0.069		0 / 0.000		1 / 0.069		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.338							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		1 / 0.069		0 / 0.000		1 / 0.069		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.069							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.141		- / -		- / -		- / -		0 / 0.000		2 / 0.141							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.144		- / -		- / -		0 / 0.000		2 / 0.144							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.147		- / -		0 / 0.000		2 / 0.147							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.150		0 / 0.000		2 / 0.150							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.153		2 / 0.153							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		2 / 0.133		- / -		2 / 0.136		2 / 0.138		0 / 0.000		2 / 0.138		2 / 0.141		2 / 0.144		2 / 0.147		2 / 0.150		2 / 0.153		16 / 1.142							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	1		
Out	2	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 5: Kapton Lower Lobe A Kits																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021													
Delivery Dates						Jun 2019				Jun 2020				Jun 2021				Jun 2022													
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: Kapton Lower Lobe A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.060		- / -		1 / 0.876		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.936					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		3 / 2.680		0 / 0.000		3 / 2.680		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 2.680					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		4 / 3.644		- / -		- / -		- / -		- / -		0 / 0.000		4 / 3.644					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 3.717		- / -		- / -		- / -		0 / 0.000		4 / 3.717					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 2.844		- / -		- / -		0 / 0.000		3 / 2.844					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		1 / 0.060		- / -		1 / 0.876		3 / 2.680		0 / 0.000		3 / 2.680		4 / 3.644		4 / 3.717		3 / 2.844		- / -		0 / 0.000		16 / 13.821							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	-	2	2	-	-	2	1	-	-	-	-	-	16
Out	1	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	-	2	-	2	-	2	-	2	-	2	-	1	-	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 4 of 5: Kapton Tail A Kits																															
Manufacturer Information																															
Manufacturer Name: Kapton Tail/TBD										Manufacturer Location: TBD																					
Administrative Leadtime (in Months): 6										Production Leadtime (in Months): 13																					
Dates	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates					Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024						
Delivery Dates					Apr 2020				Apr 2021				Apr 2022				Apr 2023				Apr 2024				Apr 2025						
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Kapton Tail A Kits																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	2 / 0.816	0 / 0.000	2 / 0.816	- / -	- / -	- / -	- / -	0 / 0.000	2 / 0.816																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.248	- / -	- / -	- / -	0 / 0.000	3 / 1.248																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.849	- / -	- / -	0 / 0.000	2 / 0.849																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.866	- / -	0 / 0.000	2 / 0.866																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.883	0 / 0.000	2 / 0.883																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.901	2 / 0.901																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.351	3 / 1.351																		
Total		- / -	- / -	- / -	2 / 0.816	0 / 0.000	2 / 0.816	3 / 1.248	2 / 0.849	2 / 0.866	2 / 0.883	5 / 2.252	16 / 6.914																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	2	-	1	-	1	-	1	-	1	-	1	7	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1								P-1 Line Item Number / Title: 0564 / E-6 Series								Modification Number / Title: 1 / Safety Deficiencies (OSIP 008-02)															
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																				
Installation 5 of 5: FQIS A Kits																															
Manufacturer Information																															
Manufacturer Name: FQIS/EDN Aviation													Manufacturer Location: Van Nuys, CA																		
Administrative Leadtime <i>(in Months)</i> : 2													Production Leadtime <i>(in Months)</i> : 7																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018				Nov 2019				Nov 2020																	
Delivery Dates		Jun 2018				Jun 2019				Jun 2020				Jun 2021																	
Installation Information																															
Method of Implementation: Drive In:: Installation Name: FQIS A Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		7 / 1.359		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 1.359							
FY 2018		- / -		2 / 0.120		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.120							
FY 2019		- / -		- / -		2 / 0.125		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.125							
FY 2020		- / -		- / -		- / -		2 / 0.127		0 / 0.000		2 / 0.127		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.127							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.194		- / -		- / -		- / -		0 / 0.000		3 / 0.194							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		7 / 1.359		2 / 0.120		2 / 0.125		2 / 0.127		0 / 0.000		2 / 0.127		3 / 0.194		- / -		- / -		- / -		0 / 0.000		16 / 1.925							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	7	-	-	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	2	-	-	-	-	-	-	-	-	-	16
Footnotes: ⁽¹⁾ Installation will occur as part of MR-TCDL (OSIP 013-10). Changed name of Radome to Lower Lobe to more accurately describe the location of the work being performed. The A kits for Kapton Lower Lobe costs increased from PB19 due to an updated Rough Order of Magnitude (ROM) from the contractor. ⁽²⁾ Installation Kit NRE in FY18-FY24 is for replacement of Kapton wiring and other emergent safety modifications. ⁽³⁾ Other Support cost in FY19-FY24 is for continued support of emergent aircraft safety hazards and Kapton wiring replacement to enable mission readiness.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	109.882	5.921	8.646	20.467	0.000	20.467	17.775	14.418	36.004	68.890	171.077	453.080
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	109.882	5.921	8.646	20.467	0.000	20.467	17.775	14.418	36.004	68.890	171.077	453.080
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	109.882	5.921	8.646	20.467	0.000	20.467	17.775	14.418	36.004	68.890	171.077	453.080
<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: DESCRIPTION/JUSTIFICATION: Technology Insertion corrects aircraft systems obsolescence, supportability, and interoperability deficiencies as well as providing weight savings initiatives through technology insertion of commercial and government off the shelf (COTs/GOTs) system integration onto the E-6B. Integration of already qualified airborne systems will be primary solution sets, but if required the ruggedization of the COTs/GOTs from land or water fielded systems may be pursued. Carbon Brakes integrates prior DoD-135/707 type brakes to the E-6B. Seats integrates DoD approved mission seats to meet E-6B crash load requirements. ADS-B Out integrates production COTs/GOTs to address Federal Aviation Administration (FAA) civil navigation requirements by calendar year 2020. Global Positioning System (GPS) M Code/Advanced Digital Antenna Production (ADAP) integrates production GOTs systems to correct aircraft GPS deficiencies and improve readiness. Cockpit Update (CU) integrates follow-on Boeing 737 and P-8A hardware to address obsolescence and additional civil navigation requirements. Fuel Tank Sealant Upgrade (FTSU) utilizes new commercially proven processes and materials to correct fuel system leaks caused by age and operational hours. Aircraft (AC) Electrical will integrate updated technology to the aircraft power generation and distribution system to improve power quality and distribution, and reduce aircraft weight. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Carbon Brake installs in PY-FY23 based on fleet aircraft availability. Seat installs in FY17-FY23 based on fleet aircraft availability. CU A-kit buys beyond FYDP; B kit buys beyond FYDP; with installs beyond FYDP. FTSU A-kit buys in FY19-FY23; with installs in FY19-FY23. Aircraft Electrical A-kit buys FY23 to beyond FYDP; B-kit buys FY23 to beyond FYDP; with installs in FY24 to beyond FYDP. GPS M Code/ADAP A-kit buys in FY20 to beyond FYDP.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability and Reliability Improvements					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Carbon Brakes A Kits - NonOrganic Installation 1 of 6	16 / 6.463	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 6.463	
1.1.2) Seats A Kits - NonOrganic Installation 2 of 6	16 / 8.640	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 8.640	
1.1.3) Cockpit Update A Kits - NonOrganic Installation 3 of 6	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.083	15 / 1.345	16 / 1.428	
1.1.4) Fuel Tank Sealant Upgrade A Kits - NonOrganic Installation 4 of 6	- / -	- / -	1 / 0.286	3 / 0.857	- / -	3 / 0.857	5 / 1.457	4 / 1.189	3 / 0.909	- / -	- / -	16 / 4.698	
1.1.5) AC Electrical A Kits - NonOrganic Installation 5 of 6	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.755	4 / 1.541	10 / 3.976	16 / 6.272	
1.1.6) GPS ADAP antenna - Organic ^(*)	- / -	- / -	- / -	2 / 0.138	- / -	2 / 0.138	2 / 0.141	2 / 0.144	2 / 0.146	2 / 0.149	6 / 0.457	16 / 1.175	
1.1.7) ADS-B OUT - NonOrganic Installation 6 of 6	16 / 0.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.208	
1.1.8) Archived ECPs - Organic ^(*)	95 / 2.984	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	95 / 2.984	
1.1.9) PY Installs - Organic ^(*)	94 / 3.614	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	94 / 3.614	
1.2.1) Installation Kits N/R - Organic ^{(*) (4)}	- / 20.384	- / -	- / 0.325	- / 7.086	- / -	- / 7.086	- / -	- / -	- / 15.055	- / 38.866	- / 0.966	- / 82.682	
2.1.1) Cockpit Update B Kits - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.787	15 / 12.700	16 / 13.487	
2.1.2) AC Electrical B Kits - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 7.926	4 / 16.137	10 / 41.512	16 / 65.575	
2.1.3) E-Told B Kits - Organic ^(*)	- / -	16 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.100	
2.1.4) Engine Covers - Organic ^(*)	- / -	- / -	8 / 0.120	8 / 0.122	- / -	8 / 0.122	- / -	- / -	- / -	- / -	- / -	16 / 0.242	
2.1.5) Archived ECPs - Organic ^(*)	160 / 14.546	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	160 / 14.546	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 3.468	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.468	
Subtotal: Procurement	- / 60.307	- / 0.100	- / 0.731	- / 8.203	- / -	- / 8.203	- / 1.598	- / 1.333	- / 24.791	- / 57.563	- / 60.956	- / 215.582	
Support													
3.1) Engineering Change Orders	- / 0.462	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.462	
3.2) Data	- / 0.681	- / 0.596	- / 0.557	- / 0.694	- / -	- / 0.694	- / 0.078	- / 0.082	- / 0.083	- / 0.086	- / -	- / 2.857	
3.3) Training ⁽⁵⁾	- / 5.247	- / 0.837	- / 0.112	- / 1.000	- / -	- / 1.000	- / 0.672	- / 0.873	- / -	- / 2.030	- / 18.802	- / 29.573	
3.4) Support Equipment	- / 0.063	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.063	
3.5) ILS	- / -	- / 0.926	- / 0.893	- / 0.653	- / -	- / 0.653	- / 0.653	- / 0.041	- / 0.042	- / 0.212	- / 0.173	- / 3.593	
3.6) Engineering	- / -	- / 1.389	- / 1.339	- / 0.980	- / -	- / 0.980	- / 0.980	- / 0.061	- / 0.062	- / 0.319	- / 0.260	- / 5.390	
3.7) Other Support ⁽⁶⁾	- / 41.656	- / 1.813	- / 1.348	- / 1.171	- / -	- / 1.171	- / 2.531	- / 2.949	- / 4.046	- / 5.029	- / 20.753	- / 81.296	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: E-6 Series				Modification Type: Capability and Reliability Improvements				Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Subtotal: Support	- / 48.109	- / 5.561	- / 4.249	- / 4.498	- / -	- / 4.498	- / 4.914	- / 4.006	- / 4.233	- / 7.676	- / 39.988	- / 123.234
Installation												
Installation 1 of 6: Carbon Brakes A Kits	- / 1.370	- / 0.195	- / 0.794	- / 0.404	- / 0.000	- / 0.404	- / 0.411	- / 0.209	- / 0.213	- / -	- / 0.000	- / 3.596
Installation 2 of 6: Seats A Kits	- / 0.096	- / 0.065	- / 0.099	- / 0.101	- / 0.000	- / 0.101	- / 0.068	- / 0.070	- / 0.035	- / -	- / 0.000	- / 0.534
Installation 3 of 6: Cockpit Update A Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.696	- / 43.696
Installation 4 of 6: Fuel Tank Sealant Upgrade A Kits	- / -	- / -	- / 2.073	- / 6.343	- / 0.000	- / 6.343	- / 10.784	- / 8.800	- / 6.732	- / -	- / 0.000	- / 34.732
Installation 5 of 6: AC Electrical A Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.651	- / 26.437	- / 30.088
Installation 6 of 6: ADS-B OUT	- / -	- / -	- / 0.700	- / 0.918	- / 0.000	- / 0.918	- / -	- / -	- / -	- / -	- / 0.000	- / 1.618
Subtotal: Installation	- / 1.466	- / 0.260	- / 3.666	- / 7.766	- / -	- / 7.766	- / 11.263	- / 9.079	- / 6.980	- / 3.651	- / 70.133	- / 114.264
Total												
Total Cost (Procurement + Support + Installation)	109.882	5.921	8.646	20.467	0.000	20.467	17.775	14.418	36.004	68.890	171.077	453.080

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 6: Carbon Brakes A Kits																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 0															Production Leadtime <i>(in Months)</i> : 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Carbon Brakes A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.370		1 / 0.195		4 / 0.794		2 / 0.404		0 / 0.000		2 / 0.404		2 / 0.411		1 / 0.209		1 / 0.213		- / -		0 / 0.000		16 / 3.596							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		5 / 1.370		1 / 0.195		4 / 0.794		2 / 0.404		0 / 0.000		2 / 0.404		2 / 0.411		1 / 0.209		1 / 0.213		- / -		0 / 0.000		16 / 3.596							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	3	-	-	1	-	1	-	1	-	1	1	-	1	-	-	-	1	-	-	-	-	-	-	-
Out	5	-	-	-	1	-	1	-	3	-	-	1	-	1	-	1	-	1	-	1	-	-	-	1	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 6: Seats A Kits																															
Manufacturer Information																															
Manufacturer Name: Seats/United Technology Corporation-Aerospace Systems															Manufacturer Location: Colorado Springs, CO																
Administrative Leadtime (<i>in Months</i>): 0															Production Leadtime (<i>in Months</i>): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Seats A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.096		2 / 0.065		3 / 0.099		3 / 0.101		0 / 0.000		3 / 0.101		2 / 0.068		2 / 0.070		1 / 0.035		- / -		0 / 0.000		16 / 0.534							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		3 / 0.096		2 / 0.065		3 / 0.099		3 / 0.101		0 / 0.000		3 / 0.101		2 / 0.068		2 / 0.070		1 / 0.035		- / -		0 / 0.000		16 / 0.534							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	1	1	1	-	-	1	1	1	-	1	-	1	-	1	-	1	-	-	1	-	-	-	-	-	-	16
Out	3	-	1	1	-	1	1	1	-	-	1	1	1	-	1	-	1	-	1	-	1	-	-	-	1	-	-	-	-	-	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: Cockpit Update A Kits																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Jan 2024									
Delivery Dates																						Jan 2025									
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Cockpit Update A Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 2.731		1 / 2.731								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 40.965		15 / 40.965								
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		16 / 43.696		16 / 43.696								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	16	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	16	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 6: Fuel Tank Sealant Upgrade A Kits																															
Manufacturer Information																															
Manufacturer Name: Fuel Tank Sealant Upgrade/PASI														Manufacturer Location: Dallas, TX																	
Administrative Leadtime <i>(in Months)</i> : 1														Production Leadtime <i>(in Months)</i> : 2																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022									
Delivery Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022									
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Fuel Tank Sealant Upgrade A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		1 / 2.073		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 2.073					
FY 2020		- / -		- / -		- / -		3 / 6.343		0 / 0.000		3 / 6.343		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 6.343					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		5 / 10.784		- / -		- / -		- / -		- / -		0 / 0.000		5 / 10.784					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 8.800		- / -		- / -		- / -		0 / 0.000		4 / 8.800					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 6.732		- / -		- / -		0 / 0.000		3 / 6.732					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		1 / 2.073		3 / 6.343		0 / 0.000		3 / 6.343		5 / 10.784		4 / 8.800		3 / 6.732		- / -		0 / 0.000		16 / 34.732							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	1	1	2	-	1	2	-	-	-	-	-	-	-	16
Out	-	-	-	-	-	-	-	1	-	-	-	1	1	1	-	1	1	3	-	1	1	2	-	1	2	-	-	-	-	-	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 6: AC Electrical A Kits																															
Manufacturer Information																															
Manufacturer Name: AC Electrical/TBD															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Dec 2022				Dec 2023					
Delivery Dates																						Dec 2023				Dec 2024					
Installation Information																															
Method of Implementation: Drive In:: Installation Name: AC Electrical A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 3.651		0 / 0.000		2 / 3.651					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 7.553		4 / 7.553					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 18.884		10 / 18.884					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 3.651		14 / 26.437		16 / 30.088					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	14	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	15	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 2 / Tech Insertion (OSIP 003-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 6: ADS-B OUT																															
Manufacturer Information																															
Manufacturer Name: ADS-B OUT															Manufacturer Location: Jacksonville, FL																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: ADS-B OUT																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -	- / -		7 / 0.700		9 / 0.918		0 / 0.000		9 / 0.918		- / -		- / -		- / -		- / -		0 / 0.000		16 / 1.618								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		7 / 0.700		9 / 0.918		0 / 0.000		9 / 0.918		- / -		- / -		- / -		- / -		- / -		0 / 0.000								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	-	-	-	-	-	2	2	2	1	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Footnotes: ⁽⁴⁾ FY20 Non Recurring Engineering includes capabilities analyses for Aircraft Electrical and Cockpit Update. ⁽⁵⁾ FY20 increase is to procure the Carbon Brakes for Operational Flight Trainer (OFT). ⁽⁶⁾ Other support in FY20 includes project management and acquisition support for engine covers, carbon brakes, seats, ADS-B Out, fuel tank sealant upgrade, and GPS ADAP Antenna.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	109.479	21.919	8.015	9.393	0.000	9.393	17.969	18.352	5.307	5.407	6.203	202.044
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	109.479	21.919	8.015	9.393	0.000	9.393	17.969	18.352	5.307	5.407	6.203	202.044
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	109.479	21.919	8.015	9.393	0.000	9.393	17.969	18.352	5.307	5.407	6.203	202.044
<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: DESCRIPTION/JUSTIFICATION: Service Life Extension Program (SLEP) extends the service life of the aircraft to 2038+ through airframe strengthening, structural data recording and analysis, and just in time modifications to prevent aircraft grounding due to fatigue. Modifications include, but not limited to: SLEP Phase 1; Individual Aircraft Tracking System (IATS); Crash Survivable Flight Incident Recorder System (CSFIRS) Phase 2; Runway Survey Analysis; and SLEP Phase 1B. IATS will integrate the data collected from already installed Digital Flight Data Acquisition Unit (DFDAU) to support the Aircraft Structural Integrity Program along with data collected from a representative sample of E-6Bs (2 aircraft) during a limited period of time. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: IATS NRE PY-FY18, A-kit buys in FY18 and installs in FY18-FY19. SLEP Phase 1B NRE FY17-FY18, kit buys FY18 to beyond FYDP, and installs FY19 to beyond FYDP; CSFIRS Phase 2 NRE FY18-FY19, kit buys in FY20-FY22 and installs FY20-FY22.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Life Extension					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) SLEP Phase 1 A Kits - NonOrganic Installation 1 of 4	15 / 11.205	1 / 0.719	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 11.924
1.1.2) CSFIR Phase 2 A Kits - NonOrganic Installation 2 of 4	- / -	- / -	- / -	1 / 0.407	- / -	1 / 0.407	7 / 2.906	8 / 3.388	- / -	- / -	- / -	16 / 6.701
1.1.3) SLEP Phase 1B A Kits - NonOrganic Installation 3 of 4	- / -	2 / 0.156	2 / 0.159	2 / 0.162	- / -	2 / 0.162	2 / 0.166	2 / 0.169	2 / 0.172	2 / 0.176	2 / 0.179	16 / 1.339
1.1.4) IATS A Kits - NonOrganic Installation 4 of 4	- / -	2 / 1.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.560
1.2.1) Installation Kits N/R - Organic ^{(*) (7)}	- / 12.074	- / 8.425	- / 1.567	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.066
Subtotal: Procurement	- / 23.279	- / 10.860	- / 1.726	- / 0.569	- / -	- / 0.569	- / 3.072	- / 3.557	- / 0.172	- / 0.176	- / 0.179	- / 43.590
Support												
2.1) Engineering Change Order	- / -	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.750
2.2) Data ⁽⁸⁾	- / 0.063	- / 0.045	- / 0.200	- / 0.510	- / -	- / 0.510	- / 0.521	- / -	- / -	- / -	- / -	- / 1.339
2.3) Training ⁽⁹⁾	- / -	- / -	- / -	- / 1.586	- / -	- / 1.586	- / 0.538	- / -	- / -	- / -	- / -	- / 2.124
2.4) Support Equipment	- / 0.794	- / 0.454	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.248
2.5) ILS	- / -	- / 0.205	- / 0.209	- / 0.264	- / -	- / 0.264	- / 0.268	- / 0.220	- / 0.224	- / 0.228	- / -	- / 1.618
2.6) Engineering	- / -	- / 0.277	- / 0.281	- / 0.356	- / -	- / 0.356	- / 0.362	- / 0.297	- / 0.302	- / 0.308	- / -	- / 2.183
2.7) Other Support ⁽¹⁰⁾	- / 10.136	- / 1.567	- / 1.595	- / 2.016	- / -	- / 2.016	- / 2.054	- / 1.681	- / 1.714	- / 1.742	- / -	- / 22.505
Subtotal: Support	- / 10.993	- / 3.298	- / 2.285	- / 4.732	- / -	- / 4.732	- / 3.743	- / 2.198	- / 2.240	- / 2.278	- / 0.000	- / 31.767
Installation												
Installation 1 of 4: SLEP Phase 1 A Kits	- / 75.207	- / 6.261	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 81.468
Installation 2 of 4: CSFIR Phase 2 A Kits	- / -	- / -	- / -	- / 1.364	- / 0.000	- / 1.364	- / 8.372	- / 9.759	- / -	- / -	- / 0.000	- / 19.495
Installation 3 of 4: SLEP Phase 1B A Kits	- / -	- / -	- / 2.474	- / 2.728	- / 0.000	- / 2.728	- / 2.782	- / 2.838	- / 2.895	- / 2.953	- / 6.024	- / 22.694
Installation 4 of 4: IATS A Kits	- / -	- / 1.500	- / 1.530	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.030
Subtotal: Installation	- / 75.207	- / 7.761	- / 4.004	- / 4.092	- / -	- / 4.092	- / 11.154	- / 12.597	- / 2.895	- / 2.953	- / 6.024	- / 126.687
Total												
Total Cost (Procurement + Support + Installation)	109.479	21.919	8.015	9.393	0.000	9.393	17.969	18.352	5.307	5.407	6.203	202.044

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 4: SLEP Phase 1 A Kits																															
Manufacturer Information																															
Manufacturer Name: SLEP Phase 1/ALC Tinker															Manufacturer Location: Tinker Air Force Base, OK																
Administrative Leadtime (in Months): 7															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Apr 2018																													
Delivery Dates		Jul 2018																													
Installation Information																															
Method of Implementation: Drive In:: Installation Name: SLEP Phase 1 A Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		15 / 75.207		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		15 / 75.207							
FY 2018		- / -		1 / 6.261		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 6.261							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		15 / 75.207		1 / 6.261		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		16 / 81.468							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	15	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	15	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 4: CSFIR Phase 2 A Kits																															
Manufacturer Information																															
Manufacturer Name: CSFIR Phase 2/Teledyne															Manufacturer Location: El Segundo, CA																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Nov 2019				Nov 2020				Nov 2021													
Delivery Dates										Jun 2020				Jun 2021				Jun 2022													
Installation Information																															
Method of Implementation: Drive In:: Installation Name: CSFIR Phase 2 A Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		1 / 1.364		0 / 0.000		1 / 1.364		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 1.364					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		7 / 8.372		- / -		- / -		- / -		- / -		0 / 0.000		7 / 8.372					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		8 / 9.759		- / -		- / -		- / -		0 / 0.000		8 / 9.759					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		1 / 1.364		0 / 0.000		1 / 1.364		7 / 8.372		8 / 9.759		- / -		- / -		0 / 0.000		16 / 19.495							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	3	4	-	-	4	4	-	-	-	-	-	-	-	-	-	-	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	4	-	-	4	4	-	-	-	-	-	-	-	-	-	-	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 4: SLEP Phase 1B A Kits																															
Manufacturer Information																															
Manufacturer Name: SLEP Phase 1B/ALC Tinker															Manufacturer Location: Tinker Air Force Base, OK																
Administrative Leadtime (<i>in Months</i>): 5															Production Leadtime (<i>in Months</i>): 14																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Feb 2018				Feb 2019				Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024					
Delivery Dates		Apr 2019				Apr 2020				Apr 2021				Apr 2022				Apr 2023				Apr 2024				Apr 2025					
Installation Information																															
Method of Implementation: Drive-In:: Installation Name: SLEP Phase 1B A Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		2 / 2.474		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 2.474						
FY 2019		- / -	- / -		- / -		2 / 2.728		0 / 0.000		2 / 2.728		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 2.728						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		2 / 2.782		- / -		- / -		- / -		- / -		0 / 0.000		2 / 2.782						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		2 / 2.838		- / -		- / -		- / -		0 / 0.000		2 / 2.838						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 2.895		- / -		- / -		0 / 0.000		2 / 2.895						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 2.953		0 / 0.000		2 / 2.953						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 3.012		2 / 3.012						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 6.024		16 / 22.694						
Total		- / -	- / -		2 / 2.474		2 / 2.728		0 / 0.000		2 / 2.728		2 / 2.782		2 / 2.838		2 / 2.895		2 / 2.953		4 / 6.024		16 / 22.694								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	1	1	4	16
Out	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	-	1	6	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																						
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)												
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																	
Installation 4 of 4: IATS A Kits																																
Manufacturer Information																																
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																	
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 7																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates		Nov 2017																														
Delivery Dates		Jun 2018																														
Installation Information																																
Method of Implementation: Drive In:: Installation Name: IATS A Kits																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		1 / 1.500		1 / 1.530		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 3.030						
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -		1 / 1.500		1 / 1.530		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 3.030						
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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: ⁽⁷⁾ Non-Recurring Engineering funding SLEP Phase IB and CSFIRS. ⁽⁸⁾ FY20 Technical Data for CSFIR Phase 2 and SLEP Phase 1B.																																

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 3 / Service Life Extension Program (SLEP) (OSIP 003-07)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽⁹⁾ FY20 is for two CSFIRS Phase II training platforms (Integrated Avionics Trainer and Operational Flight Trainer) ⁽¹⁰⁾ Other support includes project management and acquisition support for SLEP Phase 1B installs, CSFIRS Phase II installs, and IATS.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	278.843	22.634	66.037	40.368	0.000	40.368	30.138	21.020	20.739	20.479	18.382	518.640
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	278.843	22.634	66.037	40.368	0.000	40.368	30.138	21.020	20.739	20.479	18.382	518.640
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	278.843	22.634	66.037	40.368	0.000	40.368	30.138	21.020	20.739	20.479	18.382	518.640
<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: DESCRIPTION/JUSTIFICATION: Installs expanded aircraft digital communication paths and processing to improve airborne command post operations and modernizes direct over-the-horizon communications links to deployed strategic forces. Internet Protocol (IP) connectivity and wideband communication capability to enable voice, video and data services is mission critical to command and control operations. Modifications include: IP Phase 1, International Marine/Maritime Satellite (INMARSAT); IP Phase 3, removal of Utility Trailing Wire Antenna (UTWA); Key Generator Receiver (KGR)-72; and High Power Transmit Set (HPTS) Modernization Program. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: KGR-72 NRE in FY17-FY18. KGR-72 Life of Type Buy production kit buy in FY19 with production installs in FY19-FY22. HPTS Modernization NRE begins in FY19-FY22 with procurement of kits FY22-FYDP and production installs in FY23-FYDP. High Frequency Automatic Link Establishment (HF-ALE) requirements are evolving and funding was realigned by the Department of the Navy for higher priority requirements.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series				Modification Type: Capability Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Phase 1 A Kit - NonOrganic ⁽¹¹⁾ Installation 1 of 3	16 / 7.739	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 7.739	
1.1.2) Phase 3 A Kit - NonOrganic ⁽¹²⁾ Installation 1 of 3	16 / 7.518	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 7.518	
1.1.3) KGR-72 A Kit - NonOrganic ⁽¹³⁾ Installation 2 of 3	- / -	- / -	16 / 6.038	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 6.038	
1.1.4) HPTS A Kit - NonOrganic ⁽¹⁴⁾ Installation 3 of 3	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.533	4 / 2.085	4 / 2.127	3 / 1.627	14 / 7.372	
1.1.6) Archived ECPs - Organic ^(*)	19 / 7.796	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 7.796	
1.2.1) Installation Kit N/R - Organic ^(*) ⁽¹⁵⁾	- / 74.145	- / 14.335	- / 34.881	- / 28.721	- / -	- / 28.721	- / 19.418	- / 0.865	- / -	- / -	- / -	- / 172.365	
2.1.1) Phase 1 B Kits - Organic ^(*)	16 / 8.817	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 8.817	
2.1.2) Phase 3 B Kits - Organic ^(*)	16 / 10.404	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 10.404	
2.1.3) KGR-72 B Kits - Organic ^(*)	- / -	- / -	16 / 8.438	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 8.438	
2.1.4) HPTS B Kit - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 8.687	4 / 11.814	4 / 12.051	3 / 9.219	14 / 41.771	
2.1.5) Wideband Satellite Communication (SATCOM) B Kits - Organic ^(*)	7 / 9.232	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 9.232	
2.1.6) Archived ECPs - Organic ^(*)	19 / 3.519	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 3.519	
Subtotal: Procurement	- / 129.170	- / 14.335	- / 49.357	- / 28.721	- / -	- / 28.721	- / 19.418	- / 11.085	- / 13.899	- / 14.178	- / 10.846	- / 291.009	
Support													
3.2) Data ⁽¹⁶⁾	- / 2.987	- / -	- / 1.030	- / 0.930	- / -	- / 0.930	- / -	- / -	- / -	- / -	- / -	- / 4.947	
3.3) Training ⁽¹⁷⁾	- / 15.033	- / -	- / 5.050	- / 3.654	- / -	- / 3.654	- / 2.413	- / -	- / -	- / -	- / -	- / 26.150	
3.4) Support Equipment	- / 0.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.025	
3.5) ILS	- / 4.319	- / 0.250	- / 0.258	- / 0.300	- / -	- / 0.300	- / -	- / -	- / -	- / -	- / -	- / 5.127	
3.6) Other Support ⁽¹⁸⁾	- / 52.253	- / 4.029	- / 6.160	- / 6.433	- / -	- / 6.433	- / 7.801	- / 9.505	- / 5.516	- / 4.501	- / 4.246	- / 100.444	
Subtotal: Support	- / 74.617	- / 4.279	- / 12.498	- / 11.317	- / -	- / 11.317	- / 10.214	- / 9.505	- / 5.516	- / 4.501	- / 4.246	- / 136.693	
Installation													
Installation 1 of 3: GRP: Phase	- / 75.056	- / 4.020	- / 4.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 83.177	
Installation 2 of 3: KGR-72 A Kit	- / -	- / -	- / 0.081	- / 0.330	- / 0.000	- / 0.330	- / 0.506	- / 0.430	- / -	- / -	- / 0.000	- / 1.347	
Installation 3 of 3: HPTS A Kit	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.324	- / 1.800	- / 3.290	- / 6.414	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Subtotal: Installation	- / 75.056	- / 4.020	- / 4.182	- / 0.330	- / -	- / 0.330	- / 0.506	- / 0.430	- / 1.324	- / 1.800	- / 3.290	- / 90.938
Total												
Total Cost (Procurement + Support + Installation)	278.843	22.634	66.037	40.368	0.000	40.368	30.138	21.020	20.739	20.479	18.382	518.640

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: GRP: Phase																															
Manufacturer Information																															
Manufacturer Name: Boeing															Manufacturer Location: Seattle, Wa																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 16																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Drive In:: Installation Name: Phase																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		28 / 75.056		2 / 4.020		2 / 4.101		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		32 / 83.177					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
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FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		28 / 75.056		2 / 4.020		2 / 4.101		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		32 / 83.177					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	28	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32
Out	26	-	2	-	2	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: KGR-72 A Kit																															
Manufacturer Information																															
Manufacturer Name: KGR-72 / Collins Aerospace															Manufacturer Location: Cedar Rapids, IA																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019																									
Delivery Dates						Aug 2019																									
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: KGR-72 A Kit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		1 / 0.081		4 / 0.330		0 / 0.000		4 / 0.330		6 / 0.506		5 / 0.430		- / -		- / -		0 / 0.000		16 / 1.347								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		1 / 0.081		4 / 0.330		0 / 0.000		4 / 0.330		6 / 0.506		5 / 0.430		- / -		- / -		0 / 0.000		16 / 1.347								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	-	2	2	1	-	-	-	-	-	-	-	-	-	-	16
Out	-	-	-	-	-	-	-	-	-	1	1	1	2	-	2	2	2	-	2	2	1	-	-	-	-	-	-	-	-	-	16

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)													
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																		
Installation 3 of 3: HPTS A Kit																																	
Manufacturer Information																																	
Manufacturer Name: HPTS / Collins Aerospace ⁽¹⁹⁾															Manufacturer Location: Cedar Rapids, IA																		
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 12																		
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024							
Contract Dates																		Nov 2021				Nov 2022				Nov 2023							
Delivery Dates																						Nov 2022				Nov 2023				Nov 2024			
Installation Information																																	
Method of Implementation: [none specified]:: Installation Name: HPTS A Kit																																	
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 1.324		- / -		0 / 0.000		3 / 1.324							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.800		0 / 0.000		4 / 1.800							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.880		4 / 1.880		4 / 1.880							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 1.410		3 / 1.410							
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 1.324		4 / 1.800		7 / 3.290		14 / 6.414							
Installation Schedule																																	
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	14		
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	2	-	10	14		
Footnotes: ⁽¹¹⁾ Phase 1 installations are performed concurrently with Block I. Due to the addition of significant aircraft maintenance workload during Block I installations, the final Phase 1 install has moved from FY18 to FY19.																																	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 4 / Communications Upgrade (OSIP 012-07)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(12) Phase 3 installations are performed concurrently with Block I. Due to the addition of significant aircraft maintenance workload during Block I installations, the final Phase 3 install has moved from FY18 to FY19. (13) Changed name of Common Very Low Frequency Receiver (CVLR) to KGR-72 to more accurately describe the effort. KGR-72 A and B kits are being procured in FY19 Life of Type Buy due to Obsolete Programmable Embeddable INFOSEC Products (PEIP). (14) The total quantity of HPTS A and B kits consist of 14 HPTS and two (2) validation and verification kits being procured under Non-Recurring Engineering (NRE) for a total quantity of 16. (15) PY-FY22 NRE increases due to expanded scope of modifications driven by obsolescence. HPTS Modernization (FY19-FY22) will address current and near obsolescence to ensure functionality through the expected aircraft service life. This will include the Dual Trailing Wire Antenna, Solid State Power Amplifier / Coupler, and Control and Monitor subsystems. (16) KGR-72 FY19 data is the initial delivery of technical publications for Government review. FY20 data is the final evaluated data, ensuring delivered data meets Government requirements and approved corrections made to delivered data and incorporation into Electronic Technical Manuals (ETMs) and NATOPS (aircrew). (17) Training in FY19-FY21 includes funding for Mission Avionics System Trainer (MAST) and Weapon System Trainer (WST) courseware material, initial instructor training and MAST install in support of KGR-72 and HPTS Technology Upgrade. (18) Other support costs in FY19 supports IP Phase 1 and Phase 3 installation, which are conducted concurrently with Block I installation. FY19- FY24 Other support includes project management and acquisition support for KGR-72 and HPTS production kits and installations. (19) The total quantity of HPTS A and B kits consist of 14 HPTS and two (2) validation and verification kits being procured under Non-Recurring Engineering (NRE) for a total quantity of 16.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 5 / Block I (OSIP 008-10)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	520.498	26.773	24.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	571.367
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	520.498	26.773	24.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	571.367
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	520.498	26.773	24.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	571.367
<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:

DESCRIPTION/JUSTIFICATION: Block I corrects Airborne Command Post (ABNCP) operational test deficiencies to improve mission capability, readiness and legacy system obsolescence. Modifications include, but not limited to: Block I; Very Low Frequency (VLF) Transmit Terminal (VTT); and Technology Upgrade including Block I, and Workstations.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Block I Systems Integration Lab (SIL) & aircraft (A/C) development kit installed in SIL FY06 and in A/C FY08; Milestone-C 3Q FY10; Low-Rate Initial Production (LRIP) contract award 3Q FY10; LRIP 1 kit buy in FY10 and 3 kit buys in FY11 with installs in FY11 and FY12 (4 A/C); Full-Rate Production (FRP) Decision Review achieved 2Q FY12. FRP kit buys PY-FY17 (11 A/C) with installs in PY-FY19. VTT Prototype SIL and A/C development kit delivery in FY11 with installation in FY12. SIL and A/C testing 2Q FY12 to 1Q FY13. VTT Production kit buys in PY-FY17 with installs in PY-FY19 (15 A/C).

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 5 / Block I (OSIP 008-10)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability Improvements					Related RDT&E PEs: 0101402N				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) Block 1 A Kit - NonOrganic ⁽²⁰⁾ Installation 1 of 1	15 / 64.852	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 64.852
1.1.2) Tech Upgrade Block A Kits - NonOrganic ⁽²¹⁾ Installation 1 of 1	16 / 0.272	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.272
1.1.3) Tech Upgrade Workstations A Kits - NonOrganic ⁽²²⁾ Installation 1 of 1	16 / 3.278	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 3.278
2.1.3) VTT B Kits - NonOrganic Installation 1 of 1	15 / 4.807	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 4.807
1.2.1) Installation Kits N/R - Organic ^(*)	- / 61.306	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 61.306
2.1.1) Block 1 B Kit - Organic ^(*)	15 / 106.482	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 106.482
2.1.2) Tech Upgrade Workstations B Kits - Organic ^(*)	16 / 7.456	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 7.456
Subtotal: Procurement	- / 248.453	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 248.453
Support												
3.1) Engineering Change Orders	- / 2.258	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.258
3.2) Data	- / 13.793	- / 0.692	- / 0.706	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.191
3.3) Training	- / 56.236	- / 0.232	- / 0.240	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 56.708
3.4) Support Equipment	- / 37.070	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 37.070
3.5) ILS	- / 4.038	- / 0.464	- / 0.473	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.975
3.6) Other Support	- / 64.885	- / 13.677	- / 13.950	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 92.512
Subtotal: Support	- / 178.280	- / 15.065	- / 15.369	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 208.714
Installation												
Installation 1 of 1: GRP: Block/Tech/VTT Installs	- / 93.765	- / 11.708	- / 8.727	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 114.200
Subtotal: Installation	- / 93.765	- / 11.708	- / 8.727	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 114.200
Total												
Total Cost (Procurement + Support + Installation)	520.498	26.773	24.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	571.367

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0564 / E-6 Series											Modification Number / Title: 5 / Block I (OSIP 008-10)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 1 of 1: GRP: Block/Tech/VTI Installs																																
Manufacturer Information																																
Manufacturer Name: Rockwell Collins													Manufacturer Location: Cedar Rapids, IA																			
Administrative Leadtime (<i>in Months</i>): 0													Production Leadtime (<i>in Months</i>): 0																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates																																
Delivery Dates																																
Installation Information																																
Method of Implementation: Contractor Drive In:: Installation Name: Block/Tech/VTI Installs																																
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		50 / 93.765		8 / 11.708		4 / 8.727		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		62 / 114.200								
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		50 / 93.765		8 / 11.708		4 / 8.727		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		62 / 114.200								
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	50	-	4	2	2	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	
Out	48	-	4	2	4	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	
Footnotes: ⁽²⁰⁾ The quantity of 15 Block 1 A kit buys are procured with APN funding and 1 was procured and installed with RDT&E funding as the prototype for a total quantity of 16. ⁽²¹⁾ Technology Upgrade Block I A kits quantity of 16 consists of 2 Prior year validation/verification kits, 10 retrofits and 4 forward fits. Technology Upgrade Block I B kits are procured by the U.S. Air Force. ⁽²²⁾ Technology Upgrade Workstation A kits quantity of 16 consists of 2 Prior year validation/verification kits, 10 retrofits and 4 forward fits.																																

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	209.292	50.182	13.914	32.304	0.000	32.304	48.198	42.635	25.651	0.000	0.000	422.176
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	209.292	50.182	13.914	32.304	0.000	32.304	48.198	42.635	25.651	0.000	0.000	422.176
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	209.292	50.182	13.914	32.304	0.000	32.304	48.198	42.635	25.651	0.000	0.000	422.176
<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: DESCRIPTION/JUSTIFICATION: Multi-Role Tactical Common Data Link (MR-TCDL) is an Army program which developed production hardware that will be integrated into the E-6B aircraft. The E-6B MR-TCDL program performs the NRE to integrate MR-TCDL into the E-6B to support expanded aircraft communication bandwidth capability required to interoperate with United States Strategic Command's National Command and Control Architecture. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: E-6B MR-TCDL integration NRE PY-FY20. PY NRE includes one A & B kit and one install. MR-TCDL Production A kit buys in PY-FY22 and B Kit buys in PY-FY21, with installs FY17-FY23.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series				Modification Type: Capability Improvements				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) MR-TCDL A Kit - Organic ^(*)	4 / 8.420	4 / 9.363	- / -	1 / 2.433	- / -	1 / 2.433	3 / 7.446	3 / 7.595	- / -	- / -	- / -	15 / 35.257	
1.2.1) Installation Kit N/R - Organic ^(*) ⁽²³⁾	- / 82.772	- / 8.032	- / 0.125	- / 0.862	- / -	- / 0.862	- / -	- / -	- / -	- / -	- / -	- / 91.791	
2.1.1) MR-TCDL Equipment B Kits - NonOrganic ⁽²⁴⁾ Installation 1 of 1	7 / 44.019	6 / 26.418	1 / 4.493	- / -	- / -	- / -	1 / 4.674	- / -	- / -	- / -	- / -	15 / 79.604	
Subtotal: Procurement	- / 135.211	- / 43.813	- / 4.618	- / 3.295	- / -	- / 3.295	- / 12.120	- / 7.595	- / -	- / -	- / 0.000	- / 206.652	
Support													
3.1) Engineering Change Orders	- / 6.251	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.251	
3.2) Data	- / 8.861	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.861	
3.3) Training ⁽²⁵⁾	- / 9.529	- / 2.795	- / -	- / 6.733	- / -	- / 6.733	- / 0.493	- / -	- / -	- / -	- / -	- / 19.550	
3.5) ILS	- / 0.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.005	
3.6) Engineering ⁽²⁶⁾	- / -	- / 0.350	- / -	- / 0.817	- / -	- / 0.817	- / 0.817	- / 0.777	- / 0.610	- / -	- / -	- / 3.371	
3.7) Other Support ⁽²⁷⁾	- / 41.931	- / 3.224	- / 1.270	- / 6.492	- / -	- / 6.492	- / 4.229	- / 4.218	- / 2.547	- / -	- / -	- / 63.911	
Subtotal: Support	- / 66.577	- / 6.369	- / 1.270	- / 14.042	- / -	- / 14.042	- / 5.539	- / 4.995	- / 3.157	- / -	- / 0.000	- / 101.949	
Installation													
Installation 1 of 1: MR-TCDL Equipment B Kits	- / 7.504	- / -	- / 8.026	- / 14.967	- / 0.000	- / 14.967	- / 30.539	- / 30.045	- / 22.494	- / -	- / 0.000	- / 113.575	
Subtotal: Installation	- / 7.504	- / -	- / 8.026	- / 14.967	- / -	- / 14.967	- / 30.539	- / 30.045	- / 22.494	- / -	- / 0.000	- / 113.575	
Total													
Total Cost (Procurement + Support + Installation)	209.292	50.182	13.914	32.304	0.000	32.304	48.198	42.635	25.651	0.000	0.000	422.176	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: MR-TCDL Equipment B Kits																															
Manufacturer Information																															
Manufacturer Name: MR-TCDL B Kits Northrup Grumman Systems Corp															Manufacturer Location: San Diego, Ca																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 21																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018								Nov 2020																	
Delivery Dates		Aug 2019				Aug 2020								Aug 2022																	
Installation Information																															
Method of Implementation: Drive In:: Installation Name: MR-TCDL Equipment B Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 7.504		- / -		1 / 8.026		2 / 14.967		0 / 0.000		2 / 14.967		3 / 22.904		- / -		- / -		- / -		0 / 0.000		7 / 53.401							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		1 / 7.635		4 / 30.045		1 / 7.498		- / -		0 / 0.000		6 / 45.178							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 7.498		- / -		0 / 0.000		1 / 7.498							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 7.498		- / -		0 / 0.000		1 / 7.498							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		1 / 7.504		- / -		1 / 8.026		2 / 14.967		0 / 0.000		2 / 14.967		4 / 30.539		4 / 30.045		3 / 22.494		- / -		0 / 0.000		15 / 113.575							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	2	-	2	1	1	-	2	-	1	-	-	-	-	-	-	15
Out	-	-	-	-	1	-	-	-	-	-	1	-	1	-	1	1	1	1	1	1	2	1	1	1	-	-	-	1	-	-	15
Footnotes: ⁽²³⁾ Prior year NRE includes one A & B kit and one install. FY20 NRE is for system integration, aircraft ground support and flight testing support. ⁽²⁴⁾ FY20 MR-TCDL B Kits installation schedule delays due to test aircraft maintenance readiness issues unrelated to the modifications.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 6 / Multi-Role Tactical Common Data Link (MR-TCDL) (OSIP 013-10)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(25) FY20 Training cost increased due to delays in the modification schedule of the MAST (Mission Avionics Systems Trainer). (26) FY20-FY23 engineering support for software engineering upgrades, implementation and increases in cyber requirements. (27) Other Support costs includes project management support and acquisition support integral to the execution of the MR-TCDL modifications.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 7 / Auxiliary Power Unit (APU) (OSIP 002-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	51.118	13.103	9.938	6.945	0.000	6.945	12.375	11.751	9.160	0.000	0.000	114.390
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	51.118	13.103	9.938	6.945	0.000	6.945	12.375	11.751	9.160	0.000	0.000	114.390
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	51.118	13.103	9.938	6.945	0.000	6.945	12.375	11.751	9.160	0.000	0.000	114.390
<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: DESCRIPTION/JUSTIFICATION: The Auxiliary Power Unit (APU) incorporates safety, capacity and life-limiting propulsion and power corrective actions to resolve safety and readiness concerns. Corrections to design deficiencies found during post production test and evaluation and discovered during fleet operations have resulted in safety and reliability degradations that must be corrected. The requirement to upgrade or modify the APU is critical in maintaining sustainable fleet reliability, safety, and performance and is necessary to meet established mission requirements. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: APU NRE PY-FY18, PY NRE includes one A & B kit and one install. APU Kit buys PY-FY19; installations FY17-FY23.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 7 / Auxiliary Power Unit (APU) (OSIP 002-12)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability Improvements					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) APU A Kit - NonOrganic ⁽²⁸⁾ <i>Installation 1 of 1</i>	9 / 14.081	4 / 5.960	2 / 3.038	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 23.079	
1.2.1) Installation Kits N/R - Organic ^(*) ⁽²⁹⁾	- / 7.712	- / 0.304	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.016	
2.1.1) APU Equipment B Kit - Organic ^(*)	9 / 6.735	4 / 3.024	2 / 1.541	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 11.300	
2.1.2) APU Generator B kit - Organic ^(*)	9 / 0.540	4 / 0.243	2 / 0.124	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.907	
Subtotal: Procurement	- / 29.068	- / 9.531	- / 4.703	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 43.302	
Support													
3.1) Engineering Change Orders	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	
3.2) Data	- / 4.612	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.612	
3.3) Training	- / 5.819	- / -	- / 0.292	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.111	
3.4) Support Equipment	- / 0.836	- / -	- / 0.451	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.287	
3.5) ILS ⁽³⁰⁾	- / -	- / 0.944	- / 0.408	- / 0.400	- / -	- / 0.400	- / 0.392	- / -	- / -	- / -	- / -	- / 2.144	
3.6) Engineering	- / -	- / 0.210	- / 0.135	- / 0.132	- / -	- / 0.132	- / 0.130	- / -	- / -	- / -	- / -	- / 0.607	
3.7) Other Support ⁽³¹⁾	- / 8.311	- / 2.418	- / 1.551	- / 1.521	- / -	- / 1.521	- / 1.109	- / 0.792	- / 0.776	- / -	- / -	- / 16.478	
Subtotal: Support	- / 19.778	- / 3.572	- / 2.837	- / 2.053	- / -	- / 2.053	- / 1.631	- / 0.792	- / 0.776	- / -	- / 0.000	- / 31.439	
Installation													
Installation 1 of 1: APU A Kit	- / 2.272	- / -	- / 2.398	- / 4.892	- / 0.000	- / 4.892	- / 10.744	- / 10.959	- / 8.384	- / -	- / 0.000	- / 39.649	
Subtotal: Installation	- / 2.272	- / -	- / 2.398	- / 4.892	- / -	- / 4.892	- / 10.744	- / 10.959	- / 8.384	- / -	- / 0.000	- / 39.649	
Total													
Total Cost (Procurement + Support + Installation)	51.118	13.103	9.938	6.945	0.000	6.945	12.375	11.751	9.160	0.000	0.000	114.390	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 7 / Auxiliary Power Unit (APU) (OSIP 002-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: APU A Kit																															
Manufacturer Information																															
Manufacturer Name: APU A Kit/L-3															Manufacturer Location: Waco, TX																
Administrative Leadtime (<i>in Months</i>): 10															Production Leadtime (<i>in Months</i>): 36																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jul 2018				Jul 2019																									
Delivery Dates		Jun 2022				Jun 2023																									
Installation Information																															
Method of Implementation: Drive In:: Installation Name: APU A Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 2.272		- / -		1 / 2.398		2 / 4.892		0 / 0.000		2 / 4.892		4 / 10.744		1 / 2.740		- / -		- / -		0 / 0.000		9 / 23.046							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 8.219		1 / 2.795		- / -		0 / 0.000		4 / 11.014							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 5.589		- / -		0 / 0.000		2 / 5.589							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		1 / 2.272		- / -		1 / 2.398		2 / 4.892		0 / 0.000		2 / 4.892		4 / 10.744		4 / 10.959		3 / 8.384		- / -		0 / 0.000		15 / 39.649							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	1	1	-	2	1	1	-	2	-	-	-	-	-	-	15
Out	-	-	-	-	1	-	-	-	-	1	-	-	1	-	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	15
Footnotes: ⁽²⁸⁾ APU FY20-FY23 installation schedule delays due to test aircraft and maintenance readiness issues unrelated to the modifications. ⁽²⁹⁾ PY NRE includes one A & B kit and one install.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 7 / Auxiliary Power Unit (APU) (OSIP 002-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(30) FY18-20 for establishment of organic depot preservation/re-preservation, overhaul, and Line Replaceable Unit (LRU) repair capabilities. This requirement emerges from United Technologies Corporation's (UTC) purchase of Hamilton Sundstrand, the APU Original Equipment Manufacturer (OEM), and subsequent movement of the APU production and depot-level maintenance facility from San Diego, California to Rzesow, Poland. (31) Other support includes project management and acquisition support for APU installation.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	82.037	49.619	27.054	49.333	0.000	49.333	40.407	30.923	17.149	0.000	0.000	296.522
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	82.037	49.619	27.054	49.333	0.000	49.333	40.407	30.923	17.149	0.000	0.000	296.522
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	82.037	49.619	27.054	49.333	0.000	49.333	40.407	30.923	17.149	0.000	0.000	296.522
(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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

DESCRIPTION/JUSTIFICATION: Family of Advanced Beyond-Line-of-Sight Terminals (FAB-T) and Presidential and National Voice Conferencing (PNVC) are U.S. Air Force (USAF) programs of record. USAF will be providing production hardware to the E-6B for integration into the aircraft. These systems are an obsolescence replacement for the currently installed Military Strategic Tactical Relay terminals (MILSTAR). E-6B integration NRE for FAB-T and PNVC includes Red Switch (RS) integration, which is required for PNVC capability.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FAB-T/PNVC/RS NRE in PY-FY19. FAB-T A kit buys in PY-FY22; with installs in FY17-FY23. PNVC A kit buys in PY-FY22; B kit buys in FY18-FY19; with installs in FY17-FY23. RS A kit buys in PY-FY22; B kit buys in PY-FY22; with installs in FY17-FY23.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability and Reliability Improvements					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) FAB-T A Kit - NonOrganic ⁽³²⁾ Installation 1 of 3	2 / 0.977	6 / 2.959	2 / 0.986	- / -	- / -	- / -	3 / 1.480	3 / 1.480	- / -	- / -	- / -	16 / 7.882
1.1.2) PNVC A Kit - Organic ^(*) ⁽³³⁾	2 / 0.054	6 / 0.167	2 / 0.057	- / -	- / -	- / -	3 / 0.089	3 / 0.091	- / -	- / -	- / -	16 / 0.458
1.1.3) RS A KIT - Organic ^(*)	2 / 5.525	2 / 5.760	2 / 5.870	4 / 11.972	- / -	4 / 11.972	4 / 12.210	2 / 6.227	- / -	- / -	- / -	16 / 47.564
1.2.1) Install Kits N/R - Organic ^(*)	- / 36.351	- / 5.439	- / 0.596	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 42.386
2.1.1) PNVC B Kit - NonOrganic Installation 2 of 3	- / -	12 / 2.233	4 / 0.758	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 2.991
2.1.2) RS B KIT - NonOrganic Installation 3 of 3	4 / 2.548	1 / 1.291	1 / 1.316	4 / 5.367	- / -	4 / 5.367	4 / 5.474	2 / 2.792	- / -	- / -	- / -	16 / 18.788
Subtotal: Procurement	- / 45.455	- / 17.849	- / 9.583	- / 17.339	- / -	- / 17.339	- / 19.253	- / 10.590	- / -	- / -	- / 0.000	- / 120.069
Support												
3.1) Engineering Change Order	- / 0.100	- / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400
3.2) Data	- / 1.805	- / 0.163	- / 0.574	- / 0.698	- / -	- / 0.698	- / 0.817	- / 0.909	- / 0.949	- / -	- / -	- / 5.915
3.3) Training ⁽³⁴⁾	- / 10.469	- / 6.269	- / 1.914	- / 9.941	- / -	- / 9.941	- / 1.106	- / -	- / -	- / -	- / -	- / 29.699
3.4) Support Equipment	- / -	- / 7.688	- / -	- / 3.000	- / -	- / 3.000	- / -	- / -	- / -	- / -	- / -	- / 10.688
3.5) ILS	- / -	- / 0.262	- / 0.139	- / 0.150	- / -	- / 0.150	- / 0.164	- / 0.184	- / 0.210	- / -	- / -	- / 1.109
3.6) Engineering ⁽³⁵⁾	- / -	- / 7.073	- / 8.924	- / 5.296	- / -	- / 5.296	- / 3.991	- / 4.000	- / 4.000	- / -	- / -	- / 33.284
3.7) Other Support ⁽³⁶⁾	- / 24.208	- / 8.972	- / 4.857	- / 5.695	- / -	- / 5.695	- / 5.266	- / 5.234	- / 4.334	- / -	- / -	- / 58.566
Subtotal: Support	- / 36.582	- / 30.727	- / 16.408	- / 24.780	- / -	- / 24.780	- / 11.344	- / 10.327	- / 9.493	- / -	- / 0.000	- / 139.661
Installation												
Installation 1 of 3: FAB-T A Kit	- / -	- / 0.511	- / 0.521	- / 3.535	- / 0.000	- / 3.535	- / 4.807	- / 4.904	- / 3.751	- / -	- / 0.000	- / 18.029
Installation 2 of 3: PNVC B Kit	- / -	- / 0.219	- / 0.223	- / 1.515	- / 0.000	- / 1.515	- / 2.060	- / 2.101	- / 1.608	- / -	- / 0.000	- / 7.726
Installation 3 of 3: RS B KIT	- / -	- / 0.313	- / 0.319	- / 2.164	- / 0.000	- / 2.164	- / 2.943	- / 3.001	- / 2.297	- / -	- / 0.000	- / 11.037
Subtotal: Installation	- / 0.000	- / 1.043	- / 1.063	- / 7.214	- / -	- / 7.214	- / 9.810	- / 10.006	- / 7.656	- / -	- / 0.000	- / 36.792
Total												
Total Cost (Procurement + Support + Installation)	82.037	49.619	27.054	49.333	0.000	49.333	40.407	30.923	17.149	0.000	0.000	296.522

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: FAB-T A Kit																															
Manufacturer Information																															
Manufacturer Name: Various ⁽³⁷⁾															Manufacturer Location: Various																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018								Nov 2020				Nov 2021													
Delivery Dates		Nov 2018				Nov 2019								Nov 2021				Nov 2022													
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: FAB-T A Kit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.511		1 / 0.521		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 1.032						
FY 2018		- / -	- / -		- / -		3 / 3.535		0 / 0.000		3 / 3.535		3 / 3.605		- / -		- / -		- / -		- / -		0 / 0.000		6 / 7.140						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		1 / 1.202		1 / 1.226		- / -		- / -		- / -		0 / 0.000		2 / 2.428						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		3 / 3.678		- / -		- / -		- / -		0 / 0.000		3 / 3.678						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 3.751		- / -		- / -		0 / 0.000		3 / 3.751						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	1 / 0.511		1 / 0.521		3 / 3.535		0 / 0.000		3 / 3.535		4 / 4.807		4 / 4.904		3 / 3.751		- / -		0 / 0.000		16 / 18.029								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	-	2	-	2	-	1	1	1	-	-	-	-	-	-	16
Out	-	-	-	-	1	-	-	-	-	-	1	-	1	1	1	1	2	1	-	1	3	-	-	1	1	1	-	-	-	-	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0564 / E-6 Series										Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: PNVC B Kit																															
Manufacturer Information																															
Manufacturer Name: Various ⁽³⁸⁾															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 10																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018																									
Delivery Dates		Sep 2018				Sep 2019																									
Installation Information																															
Method of Implementation: Drive-In Modification:: Installation Name: PNVC B Kit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		1 / 0.219		1 / 0.223		3 / 1.515		0 / 0.000		3 / 1.515		4 / 2.060		3 / 1.576		- / -		- / -		0 / 0.000		12 / 5.593							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 0.525		3 / 1.608		- / -		0 / 0.000		4 / 2.133							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -		1 / 0.219		1 / 0.223		3 / 1.515		0 / 0.000		3 / 1.515		4 / 2.060		4 / 2.101		3 / 1.608		- / -		0 / 0.000		16 / 7.726							
Installation Schedule																															
		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
	PYS	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	1	-	2	1	1	-	2	1	1	-	2	-	-	-	-	-	-	
Out	-	-	-	-	-	-	-	1	-	1	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019																								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)																							
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																				
Installation 3 of 3: RS B KIT																															
Manufacturer Information																															
Manufacturer Name: Raytheon ⁽³⁹⁾														Manufacturer Location: Indianapolis, IN																	
Administrative Leadtime (in Months): 2														Production Leadtime (in Months): 18																	
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates		Nov 2017			Nov 2018			Nov 2019			Nov 2020			Nov 2021																	
Delivery Dates		May 2019			May 2020			May 2021			May 2022			May 2023																	
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: RS B KIT																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 0.313	1 / 0.319	2 / 1.443	0 / 0.000	2 / 1.443	- / -	- / -	- / -	- / -	0 / 0.000	4 / 2.075																		
FY 2018		- / -	- / -	- / -	1 / 0.721	0 / 0.000	1 / 0.721	- / -	- / -	- / -	- / -	0 / 0.000	1 / 0.721																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.736	- / -	- / -	- / -	0 / 0.000	1 / 0.736																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.207	1 / 0.750	- / -	- / -	0 / 0.000	4 / 2.957																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.251	1 / 0.766	- / -	0 / 0.000	4 / 3.017																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.531	- / -	0 / 0.000	2 / 1.531																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	1 / 0.313	1 / 0.319	3 / 2.164	0 / 0.000	3 / 2.164	4 / 2.943	4 / 3.001	3 / 2.297	- / -	0 / 0.000	16 / 11.037																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	-	2	1	1	-	2	1	1	-	2	-	-	-	-	-	-	16
Out	-	-	-	-	1	-	-	-	-	-	1	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	16
Footnotes: (32) FY20 FAB-T A kits will not be procured due to installation schedule delays. FAB-T B Kits are procured by the United States Air Force.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 8 / Family of Adv Beyond-LI-of-Sight Term/Pres&Nat'l Voice Conf (FAB-T/ PNVC)(OSIP 014-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(33) FY20 PNVC A Kits will not be procured due to installation schedule delays. (34) FY19 Training is for Mission Avionics Systems Trainer kits and installs and FY20 is for training courseware. (35) Engineering support for software engineering upgrades and implementation. (36) Other Support costs includes project management support and acquisition support integral to the execution of the FAB-T/PNVC/RS modifications. (37) FAB-T installation schedule delays due to aircraft availability. (38) PNVC installation schedule delays due to aircraft availability. (39) RS installation schedule delays due to aircraft availability.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 9 / Mission Systems (OSIP 014-21)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	10.982	6.118	3.146	28.080	115.459	163.785
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	10.982	6.118	3.146	28.080	115.459	163.785
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	10.982	6.118	3.146	28.080	115.459	163.785
(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:

DESCRIPTION/JUSTIFICATION: Mission Systems corrects mission systems obsolescence, supportability, and interoperability deficiencies through technology insertion of commercial and government off the shelf (COTs/GOTs) system integration onto the E-6B. Integration of already qualified airborne systems will be primary solution sets, but if required the ruggedization of the COTs/GOTs from land or water fielded systems may be pursued. Mission Operations Monitor (MOM) will update already installed E-6B systems with the ability to monitor and record critical parameters to ensure mission accomplishment and provide for accurate and timely post mission evaluations. Additional hardware for more robust monitoring may be added to the aircraft. Airborne Launch Control System-Replacement (ALCS-R) will integrate an Air Force procured system onto the E-6B to replace the current ALCS which is going obsolete. 64 Bit will address 32 bit hardware/software obsolescence and associated cyber vulnerabilities by re-hosting latest versions of software on a 64 bit compliant hardware architecture.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: ALCS-R NRE FY21-FYDP, ALCS-R A & B kit buys in FY22-FYDP with installs in FY23-FYDP. 64 Bit NRE FY21-FYDP, 64 Bit A & B Kits and installs beyond FYDP. MOM NRE FY24-FYDP, MOM A & B Kits and installs beyond FYDP.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0564 / E-6 Series				Modification Number / Title: 9 / Mission Systems (OSIP 014-21)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: E-6 Series			Modification Type: Capability Improvements					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) MOM A Kits - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 4.950	16 / 4.950
1.1.2) ALCS-R A Kits - NonOrganic Installation 1 of 1	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.133	1 / 0.135	5 / 0.690	9 / 1.278	16 / 2.236
1.2.1) Installation Kits N/R - Organic ^(*) (40)	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.823	- / 4.559	- / 0.354	- / 15.000	- / 40.430	- / 71.166
2.1.1) ALCS-R B Kits - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.322	1 / 0.329	5 / 1.677	9 / 3.106	16 / 5.434
2.1.2) MOM B Kits - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 54.645	16 / 54.645
Subtotal: Procurement	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 10.823	- / 5.014	- / 0.818	- / 17.367	- / 104.409	- / 138.431
Support												
3.1) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.209	- / 0.228	- / 0.437
3.2) Training ⁽⁴¹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.455	- / -	- / 8.129	- / 4.266	- / 12.850
3.5) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.159	- / 0.649	- / 2.206	- / 2.250	- / 4.637	- / 9.901
Subtotal: Support	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.159	- / 1.104	- / 2.206	- / 10.588	- / 9.131	- / 23.188
Installation												
Installation 1 of 1: ALCS-R A Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.122	- / 0.125	- / 1.919	- / 2.166
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.122	- / 0.125	- / 1.919	- / 2.166
Total												
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	10.982	6.118	3.146	28.080	115.459	163.785

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 9 / Mission Systems (OSIP 014-21)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 1 of 1: ALCS-R A Kits																															
Manufacturer Information																															
Manufacturer Name: ALCS/TBD										Manufacturer Location: TBD																					
Administrative Leadtime (in Months): 2										Production Leadtime (in Months): 14																					
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates														Nov 2021			Nov 2022			Nov 2023											
Delivery Dates														Jan 2023			Jan 2024			Jan 2025											
Installation Information																															
Method of Implementation: Drive In:: Installation Name: ALCS-R A Kits																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.122	- / -	0 / 0.000	1 / 0.122																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.125	0 / 0.000	1 / 0.125																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.685	5 / 0.685																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.234	9 / 1.234																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.122	1 / 0.125	14 / 1.919	16 / 2.166																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	14	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	14	16
Footnotes: ⁽⁴⁰⁾ FYDP NRE for 64 Bit effort addresses 32 bit hardware and software obsolescence and associated cyber vulnerabilities by re-hosting latest versions of software on a 64 bit compliant hardware architecture. ⁽⁴¹⁾ Training in FY22 includes ALCS-R training. Training in FY24 includes training kits, courseware and modifications to upgrade to the Mission Systems configuration.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0564 / E-6 Series	Modification Number / Title: 10 / Inactive OSIPS

[illegible]**Description:**

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0564 / E-6 Series					Modification Number / Title: 10 / Inactive OSIPS			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: [No Model Specified]				Modification Type: Inactive				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> N/A													
<i>Subtotal: N/A</i>													
<i>Subtotal: Procurement, All Modification Items</i>													
Support (All Modification Items)													
2.2) Data													
2.4) Support Equipment													
2.7) Other Support													
<i>Subtotal: Support</i>													
Installation													
<i>Subtotal: Installation</i>													
Total													
Total Cost (Procurement + Support + Installation)													

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Exhibit P-3a, Individual Modification: PB 2020 Navy					Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0564 / E-6 Series			Modification Number / Title: 10 / Inactive OSIPS	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: N/A							
Manufacturer Information							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Support Only Installation					Installation Quantity: 0		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	818.682	31.787	23.566	8.933	0.000	8.933	28.751	60.690	76.978	78.505	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	818.682	31.787	23.566	8.933	0.000	8.933	28.751	60.690	76.978	78.505	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	818.682	31.787	23.566	8.933	0.000	8.933	28.751	60.690	76.978	78.505	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:

This line item funds modifications to the (11) VH-3D, (8) VH-60N, (1) UH-3D, and (1) UH-60N, currently in service. Initial Sundown efforts for these aircraft are to begin at the end of FY 2020 with the majority of the aircraft retirements in FY 2022-2023. However, the overall goal of the modifications budgeted in FY 2020 are to continue procurement efforts in accordance with the procurement strategy to maintain the VH-3D and VH-60N until the VH-92A Replacement Helicopter becomes fully operationally capable. The Communication Suite Upgrade consists of the incorporation of the Wide Band Line of Sight capability. The Structural Enhancement Program incorporates a Service Life Extension on the VH-3D and VH-60N. The Obsolescence Management Program will manage impending Executive Helicopter obsolescence issues. A variety of factors will be addressed including communication, navigation, operational weight, safety, and engine upgrades to remain mission relevant. The VH-92A Improvement Program provides for the preparation and incorporation of Engineering Change Proposals (ECP) that are based on added capability and correction of deficiencies, and the implementation of those changes to sustain and improve VH-92A operations.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / VH COMM UPGRADE (OSIP 014-02) (SAFETY)				- / 136.562	- / 16.030	- / 10.415	- / 3.248	- / 0.000	- / 3.248
P-3a	2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08) (SAFETY)				- / 27.234	- / 1.475	- / 3.662	- / 1.399	- / 0.000	- / 1.399
P-3a	3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09) (SAFETY)				- / 169.223	- / 10.014	- / 8.654	- / 4.286	- / 0.000	- / 4.286
P-3a	4 / VH-3D COCKPIT UPGRADE (OSIP 010-12) (SAFETY)				- / 52.816	- / 4.268	- / 0.835	- / 0.000	- / 0.000	- / 0.000
P-3a	5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21) (SAFETY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	6 / Inactive OSIPs (SAFETY)				- / 432.847	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 818.682	- / 31.787	- / 23.566	- / 8.933	- / 0.000	- / 8.933

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / VH COMM UPGRADE (OSIP 014-02) (SAFETY)				- / 3.150	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 169.405
P-3a	2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08) (SAFETY)				- / 5.098	- / 5.070	- / 3.925	- / 0.000	- / 0.000	- / 47.863
P-3a	3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09) (SAFETY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 192.177
P-3a	4 / VH-3D COCKPIT UPGRADE (OSIP 010-12) (SAFETY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 57.919
P-3a	5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21) (SAFETY)				- / 20.503	- / 55.620	- / 73.053	- / 78.505	Continuing	Continuing
P-3a	6 / Inactive OSIPs (SAFETY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 432.847
P-40	Total Gross/Weapon System Cost				- / 28.751	- / 60.690	- / 76.978	- / 78.505	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:

In FY20, the Wide Band Line of Sight (WBLoS) will be continuing Phase IV of the effort for seamless transitions between Ground Entry Points, and implements Through the Rotors capability in order to provide greater access to the NC2/3 networks and provide a robust Fault Isolation/Fault Detection system to the user. The Service Life Extension Program (SLEP) procurement and installations started in FY17 and will run through FY23. The SLEP effort is being installed in parallel with the Special Progressive Aircraft Rework (SPAR) effort, and must follow the SPAR schedule. The VH-3D Cabin Interior modification will complete installation efforts in FY20.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	136.562	16.030	10.415	3.248	0.000	3.248	3.150	0.000	0.000	0.000	0.000	169.405
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	136.562	16.030	10.415	3.248	0.000	3.248	3.150	0.000	0.000	0.000	0.000	169.405
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	136.562	16.030	10.415	3.248	0.000	3.248	3.150	0.000	0.000	0.000	0.000	169.405
(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:

DESCRIPTION/JUSTIFICATION: In support of the Senior Leaders Communications, a Wideband Line of Sight (WBLoS) system is required. A new radio, antenna, associated accessories, aircraft Operational Flight Programs (OFP) and aircraft integration will be required for this effort and procurement efforts began in FY16. Phase III of the four phase WBLoS effort began in FY17 and included the Non Recurring Engineering (NRE) for an upgraded software OFP that will provide the capability for a single WBLoS Terminal to communicate with more than one Ground Entry Point (GEP) at a time in order to minimize transition time between GEPs. It also included the testing and verification of that software. Phase IV, beginning FY19, includes a network upgrade to reduce anticipated packet routing delays due to limitations of Open Shortest Path First (OSPF) protocol when transitioning from GEP to GEP, and support the VH requirement of seamless transitions between GEPs. Development and deployment of enhanced capabilities through phases (via software and modifications to the radio and/ or ground equipment) continue after initial installations. Prior year efforts include the FM (YZ) radio replacements on the VH-3D and VH-60N aircraft to maintain crypto security requirements, as well as all related software/firmware modifications. On 22 April 2016, the WBLoS effort received a Deputy Assistant Secretary of the Navy signed exception to the prohibitions of 10 USC 2244a relating to the modification of aircraft within five years of retirement or disposal. WBLoS consists of two systems: Hydra Light and Crisis Management. The Hydra Light kit consists of a radio and amplifier (RFE) that provide the means for a Voice over IP (VoIP) call to be made using the Phoenix Air-to-Ground Communications Network (PAGCN) structure. The Crisis Management system is the Router, Call Manger and High Assurance Internet Protocol Encryptor (HAIPE) required to connect into the TS/SCI network controlled by DISA.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: In FY13, the Deputy Secretary of Defense (DEPSECDEF) initiated the requirement for the WBLoS capability. Research and development efforts began in FY14 for this effort; the procurement efforts began in FY16. Non recurring engineering efforts for Phase III began in FY17. Phase IV software upgrades begin in FY19.

Notes:

1. The Communication Upgrade (WBLoS) A-kits are being installed via a contractor field modification team.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-60N/VH-3D			Modification Type: SAFETY					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) VH-60 Comm Upgrade (WBLoS) Crisis Management System - NonOrganic Installation 1 of 4	- / -	- / -	8 / 0.562	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.562	
1.1.2) VH-3D Comm Upgrade (WBLoS) Crisis Management System - NonOrganic Installation 2 of 4	- / -	- / -	11 / 0.773	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.773	
1.1.3) Archived A Kits - Organic ^(*)	107 / 4.699	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	107 / 4.699	
1.1.4) Archived Prior Year Installations - Organic ^(*)	- / 1.253	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.253	
1.1.5) VH-3D Comm Upgrade (WBLoS) Hydra Light Systems - NonOrganic Installation 3 of 4	11 / 0.180	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.180	
1.1.6) VH-60 Comm Upgrade (WBLoS) Hydra Light Systems - NonOrganic Installation 4 of 4	8 / 0.149	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.149	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 12.516	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.516	
2.1.1) Archived B Kit - Organic ^(*)	127 / 15.065	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	127 / 15.065	
2.1.2) Archived Prior Year Installations - Organic ^(*)	- / 4.950	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.950	
2.1.3) VH-3D Communications Equipment Upgrade (WBLoS) - Organic ^(*)	11 / 8.592	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 8.592	
2.1.4) VH-60N Communications Equipment Upgrade (WBLoS) - Organic ^(*)	8 / 6.216	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 6.216	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 15.587	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.587	
Subtotal: Procurement	- / 69.207	- / -	- / 1.335	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 70.542	
Support													
3.2) Archived Engineering Change Orders	- / 2.576	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.576	
3.3) Data	- / 9.061	- / 0.900	- / 0.500	- / 0.282	- / -	- / 0.282	- / 0.245	- / -	- / -	- / -	- / -	- / 10.988	
3.4) Software	- / 4.000	- / 4.346	- / 3.271	- / 2.162	- / -	- / 2.162	- / 2.160	- / -	- / -	- / -	- / -	- / 15.939	
3.5) Training Equipment	- / 3.414	- / 1.430	- / 0.109	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.953	
3.6) Support Equipment	- / 7.241	- / 2.626	- / 0.385	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.252	
3.8) Other Support	- / 40.160	- / 5.464	- / 2.600	- / 0.804	- / -	- / 0.804	- / 0.745	- / -	- / -	- / -	- / -	- / 49.773	
Subtotal: Support	- / 66.452	- / 14.766	- / 6.865	- / 3.248	- / -	- / 3.248	- / 3.150	- / -	- / -	- / -	- / 0.000	- / 94.481	
Installation													
Installation 1 of 4: VH-60 Comm Upgrade (WBLoS) Crisis Management System	- / -	- / -	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.400	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: VH-60N/VH-3D				Modification Type: SAFETY					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 2 of 4: VH-3D Comm Upgrade (WBLoS) Crisis Management System	- / -	- / -	- / 0.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.550	
Installation 3 of 4: VH-3D Comm Upgrade (WBLoS) Hydra Light Systems	- / 0.542	- / 0.361	- / 1.084	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.987	
Installation 4 of 4: VH-60 Comm Upgrade (WBLoS) Hydra Light Systems	- / 0.361	- / 0.903	- / 0.181	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.445	
Subtotal: Installation	- / 0.903	- / 1.264	- / 2.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 4.382	
Total													
Total Cost (Procurement + Support + Installation)	136.562	16.030	10.415	3.248	0.000	3.248	3.150	0.000	0.000	0.000	0.000	169.405	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 4: VH-60 Comm Upgrade (WBLoS) Crisis Management System																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin - VH-60 Comm Upgrade CMS														Manufacturer Location: Patuxent River, MD																	
Administrative Leadtime (in Months): 2														Production Leadtime (in Months): 6																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018																									
Delivery Dates						May 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-60 Comm Upgrade (WBLoS) Crisis Management System																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		8 / 0.400		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.400					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		8 / 0.400		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 0.400					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	-	-	-	-	-	-	-	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 4: VH-3D Comm Upgrade (WBLoS) Crisis Management System																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin - VH-3D Comm Upgrade CMS														Manufacturer Location: Patuxent River, MD																	
Administrative Leadtime (in Months): 2														Production Leadtime (in Months): 6																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018																									
Delivery Dates						May 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-3D Comm Upgrade (WBLoS) Crisis Management System																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		11 / 0.550		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		11 / 0.550					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		11 / 0.550		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		11 / 0.550					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Out	-	-	-	-	-	-	-	6	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 4: VH-3D Comm Upgrade (WBLoS) Hydra Light Systems																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin - VH-3D Comm Upgrade Hydra Light Sys															Manufacturer Location: Patuxent River, MD																
Administrative Leadtime (in Months): 9															Production Leadtime (in Months): 3																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-3D Comm Upgrade (WBLoS) Hydra Light Systems																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.542		2 / 0.361		6 / 1.084		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		11 / 1.987							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		3 / 0.542		2 / 0.361		6 / 1.084		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		11 / 1.987							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Out	3	-	-	-	1	1	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 1 / VH COMM UPGRADE (OSIP 014-02)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 4: VH-60 Comm Upgrade (WBLoS) Hydra Light Systems																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin - VH-60 Comm Upgrade Hydra Light Sys															Manufacturer Location: Patuxent River, MD																
Administrative Leadtime (in Months): 9															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-60 Comm Upgrade (WBLoS) Hydra Light Systems																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.361		5 / 0.903		1 / 0.181		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 1.445					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		2 / 0.361		5 / 0.903		1 / 0.181		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 1.445					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	2	-	-	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	27.234	1.475	3.662	1.399	0.000	1.399	5.098	5.070	3.925	0.000	0.000	47.863
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	27.234	1.475	3.662	1.399	0.000	1.399	5.098	5.070	3.925	0.000	0.000	47.863
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	27.234	1.475	3.662	1.399	0.000	1.399	5.098	5.070	3.925	0.000	0.000	47.863
(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:

DESCRIPTION/JUSTIFICATION: The VH Structural Enhancement Program consists of the efforts to implement aircraft safety of flight structural modifications to extend the service lives of the VH-3D and VH-60N airframes. The VH-3D and VH-60N must stay in service to support mission needs until the completion of the fielding of the VH-92A aircraft. In order to meet the usage requirements, a Service Life Extension Program (SLEP) was established to implement the safety of flight upgrades identified in the Service Life Assessment Program (SLAP). The SLEP extends the service life of the VH-60N and VH-3D by 4,000 hours.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Non-Recurring Engineering for the VH-3D and VH-60N Service Life Extensions began in FY12. The VH-3D SLEP kits were procured in FY13 via a Life of Type procurement due to lack of component part availability. The VH-60N SLEP Kit procurement began in FY15. Validation and Verification efforts occurred in FY17. Installs are to follow the Special Progressive Aircraft Rework (SPAR) schedule which began in FY18.

Notes:

1. VH-60N Kits have a 11 month production lead time. Kits must be available prior to the aircraft being inducted into SPAR.
2. The Other Support across the FYDP includes labor for the installation of the SLEP kits during SPAR.

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019						
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)						
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-3D/VH-60N			Modification Type: SAFETY				Related RDT&E PEs:						
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)													
A Kits													
Recurring													
1.1.1) VH-60N SLEP Kits - NonOrganic ⁽¹⁾	2 / 0.099	2 / 0.052	2 / 0.053	2 / 0.054	- / -	2 / 0.054	- / -	- / -	- / -	- / -	- / -	8 / 0.258	
1.1.2) VH-3D SLEP Kits - NonOrganic	11 / 0.896	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.896	
Subtotal: Recurring	- / 0.995	- / 0.052	- / 0.053	- / 0.054	- / -	- / 0.054	- / -	- / -	- / -	- / -	- / 0.000	- / 1.154	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 8.229	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.229	
Subtotal: Non-Recurring	- / 8.229	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 8.229	
B Kits													
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic	- / 0.918	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.918	
Subtotal: Non-Recurring	- / 0.918	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.918	
Subtotal: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)	13 / 10.142	2 / 0.052	2 / 0.053	2 / 0.054	- / -	2 / 0.054	- / -	- / -	- / -	- / -	- / -	19 / 10.301	
Subtotal: Procurement, All Modification Items	- / 10.142	- / 0.052	- / 0.053	- / 0.054	- / -	- / 0.054	- / -	- / -	- / -	- / -	- / 0.000	- / 10.301	
Support (All Modification Items)													
3.4) Support Equipment	- / 5.743	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.743	
3.5) ILS	- / 0.100	- / 0.010	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	
3.7) Other Support ⁽²⁾	- / 11.249	- / 0.914	- / 0.900	- / 0.846	- / -	- / 0.846	- / 0.800	- / 0.772	- / 0.625	- / -	- / -	- / 16.106	
Subtotal: Support	- / 17.092	- / 0.924	- / 0.910	- / 0.846	- / -	- / 0.846	- / 0.800	- / 0.772	- / 0.625	- / -	- / 0.000	- / 21.969	
Installation													
Modification Item 1 of 1: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)	- / 0.000	- / 0.499	- / 2.699	- / 0.499	- / 0.000	- / 0.499	- / 4.298	- / 4.298	- / 3.300	- / 0.000	- / 0.000	- / 15.593	
Subtotal: Installation	- / 0.000	- / 0.499	- / 2.699	- / 0.499	- / -	- / 0.499	- / 4.298	- / 4.298	- / 3.300	- / -	- / 0.000	- / 15.593	
Total													
Total Cost (Procurement + Support + Installation)	27.234	1.475	3.662	1.399	0.000	1.399	5.098	5.070	3.925	0.000	0.000	47.863	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Modification Item 1 of 1: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)												
Manufacturer Information												
Manufacturer Name: Sikorsky Aircraft Corporation - VH Service Life Extension Program VH-60N						Manufacturer Location: Stratford, CT						
Administrative Leadtime (in Months): 0						Production Leadtime (in Months): 11						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates	Aug 2018	Jan 2019	Nov 2019									
Delivery Dates	Mar 2019	Nov 2019	Oct 2020									
Manufacturer Name: Sikorsky Aircraft Corporation - VH Service Life Extension Program VH-3D						Manufacturer Location: Stratford, CT						
Administrative Leadtime (in Months): 0						Production Leadtime (in Months): 11						
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates												
Delivery Dates												
Installation Information												
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-60N SLEP Kits												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 0.499	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	1 / 0.499
FY 2018	- / -	- / -	1 / 0.499	1 / 0.499	0 / 0.000	1 / 0.499	- / -	- / -	- / -	- / -	0 / 0.000	2 / 0.998
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.499	1 / 0.499	- / -	- / -	0 / 0.000	2 / 0.998
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.499	1 / 0.499	- / -	- / -	0 / 0.000	2 / 0.998
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.499	1 / 0.499	1 / 0.499	0 / 0.000	1 / 0.499	2 / 0.998	2 / 0.998	- / -	- / -	0 / 0.000	7 / 3.493

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 2 / VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: VH STRUCTURAL ENHANCEMENTS (OSIP 016-08)

Installation Information

Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-60N SLEP Kits

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	7
Out	-	-	-	-	-	-	-	1	-	1	-	-	1	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	7

Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-3D SLEP Kits

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 / 2.200	- / -	- / -	- / -	3 / 3.300	3 / 3.300	3 / 3.300	- / -	0 / 0.000	11 / 12.100
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	2 / 2.200	- / -	- / -	- / -	3 / 3.300	3 / 3.300	3 / 3.300	- / -	0 / 0.000	11 / 12.100

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	-	-	-	-	-	-	11
Out	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	1	1	1	-	1	1	1	-	1	1	1	-	-	-	-	11

Footnotes:

- (1) One VH-60N SLEP Kit procured in FY15 is was previously installed as the validation kit in FY17.
 (2) The Other Support across the FYDP includes labor for the installation of the SLEP kits during SPAR.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series						Modification Number / Title: 3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	169.223	10.014	8.654	4.286	0.000	4.286	0.000	0.000	0.000	0.000	0.000	192.177
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	169.223	10.014	8.654	4.286	0.000	4.286	0.000	0.000	0.000	0.000	0.000	192.177
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	169.223	10.014	8.654	4.286	0.000	4.286	0.000	0.000	0.000	0.000	0.000	192.177
<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: DESCRIPTION/JUSTIFICATION: This Operational, Safety, and Improvement Program provides for the readiness of the VH-3D and VH-60N Presidential Helicopters. Funds will be utilized to manage and prepare, process, and incorporate Engineering Change Proposals (ECP) and implement changes to sustain and improve all Executive Helicopter Series system readiness including safety, mission availability, structural integrity, component (avionics/systems) reliability, maintainability, operational weight, performance, and obsolescence conditions as they arise. This program contains the upgrade of Air Vehicle Support Equipment and technical data to support VH unique Air Vehicle requirements. This upgrade effort will install new operating systems, replace obsolete components and core computers, test equipment and basic test program hardware. The Cabin Interior upgrade program for the VH-3D reduces aircraft operational weight, replaces obsolete electrical components, upgrades the fuel system and improves maintainability. Cabin Interior installation efforts include the depopulation of the aircraft and removal of current aircraft interior to ready the aircraft for the installation of the new interior kit, as well as the installation of the new interior kit. As of 18 February 2016, the VH-3D Cabin Interior Modification effort received a Deputy Assistant Secretary of the Navy signed exception to the prohibitions of 10 USC 2244a relating to the modification of aircraft within five years of retirement or disposal. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: VH-3D Cabin Interior Upgrade Non-Recurring Engineering efforts began in FY14. The validation kit procurement was contracted in FY14 and was delivered in FY16. The validation installation was completed in FY17. Cabin Interior kits will be installed via a contractor field modification team and on-site support at the Presidential Helicopter Support Facility in Patuxent River, MD.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-3D/VH-60N				Modification Type: SAFETY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)													
A Kits													
Recurring													
1.1.1) VH-3D Cabin Interior Redesign Kit - NonOrganic	11 / 32.792	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 32.792	
1.1.2) Archived Kits - Organic	43 / 11.221	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 11.221	
Subtotal: Recurring	- / 44.013	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 44.013	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic	- / 18.956	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.956	
Subtotal: Non-Recurring	- / 18.956	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 18.956	
B Kits													
Recurring													
2.1.1) VH-3D Cabin Interior Redesign Equipment - Organic	11 / 5.345	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 5.345	
Subtotal: Recurring	- / 5.345	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.345	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic	- / 26.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.263	
Subtotal: Non-Recurring	- / 26.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 26.263	
Subtotal: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)	65 / 94.577	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	65 / 94.577	
Subtotal: Procurement, All Modification Items	- / 94.577	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 94.577	
Support (All Modification Items)													
3.2) Data	- / 2.531	- / 1.302	- / 0.340	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.173	
3.3) Training Equipment	- / 7.086	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.086	
3.4) Support Equipment	- / 3.541	- / 1.210	- / 1.318	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.069	
3.5) ILS	- / 0.864	- / 0.684	- / 0.458	- / 0.216	- / -	- / 0.216	- / -	- / -	- / -	- / -	- / -	- / 2.222	
3.6) Other Support	- / 59.263	- / 2.552	- / 2.187	- / 1.786	- / -	- / 1.786	- / -	- / -	- / -	- / -	- / -	- / 65.788	
Subtotal: Support	- / 73.285	- / 5.748	- / 4.303	- / 2.002	- / -	- / 2.002	- / -	- / -	- / -	- / -	- / 0.000	- / 85.338	
Installation													
Modification Item 1 of 1: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)	- / 1.361	- / 4.266	- / 4.351	- / 2.284	- / 0.000	- / 2.284	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 12.262	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-3D/VH-60N			Modification Type: SAFETY					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
	Subtotal: Installation	- / 1.361	- / 4.266	- / 4.351	- / 2.284	- / -	- / 2.284	- / -	- / -	- / -	- / -	- / 0.000	- / 12.262
Total													
Total Cost (Procurement + Support + Installation)	169.223	10.014	8.654	4.286	0.000	4.286	0.000	0.000	0.000	0.000	0.000	192.177	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 3 / OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: OBSOLESCENCE MANAGEMENT PROGRAM (OSIP 023-09)																																							
Manufacturer Information																																							
Manufacturer Name: Sikorsky Aircraft Corp - Cabin Interior Redesign															Manufacturer Location: Stratford, CT - VH-3D Cabin Interior																								
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 26																								
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024													
Contract Dates																																							
Delivery Dates																																							
Installation Information																																							
Method of Implementation: Contractor Field Mod Team:: Installation Name: VH-3D Cabin Interior Redesign Kit																																							
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.361		4 / 4.266		4 / 4.351		2 / 2.284		0 / 0.000		2 / 2.284		- / -		- / -		- / -		- / -		0 / 0.000		11 / 12.262															
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
Total		1 / 1.361		4 / 4.266		4 / 4.351		2 / 2.284		0 / 0.000		2 / 2.284		- / -		- / -		- / -		- / -		0 / 0.000		11 / 12.262															
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	1	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Out	-	1	-	1	1	2	1	1	1	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Method of Implementation (Organic): Archived Kits																														Installation Quantity: 43									
Method of Implementation (Organic): VH-3D Cabin Interior Redesign Equipment																														Installation Quantity: 11									

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series						Modification Number / Title: 4 / VH-3D COCKPIT UPGRADE (OSIP 010-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	52.816	4.268	0.835	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.919
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	52.816	4.268	0.835	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.919
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	52.816	4.268	0.835	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.919
<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: DESCRIPTION/JUSTIFICATION: In order to meet the requirement of providing safe and timely transportation for the President, Vice President, and other parties as directed by the Director of the White House Military Office (WHMO), and in support of the alert and contingency mission requirement of the WHMO Operations Plan, a VH-3D Cockpit Upgrade program has been established to extend the VH-3D service life requirements. The VH-3D Cockpit Upgrade eliminates pending obsolescence and supportability issues with key avionics components and brings the VH-3D in compliance with mandated avionics capabilities (Communication Navigation Surveillance/Air Traffic Management, Terrain Awareness Warning System/Ground Proximity Warning System). In addition, an upgraded cockpit improves system safety, reduces pilot workload and training requirements. The baseline upgrade includes night vision compatibility and related cockpit lighting, GPS moving map functionality, and satellite weather feed, bringing the VH-3D in line with VH-60N capabilities. Modern, common avionics equipment will reduce logistics cost and increase reliability. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Procurement efforts for the VH-3D Cockpit Upgrade began in FY12. Procurement for the Cockpit Upgrade Lighting kits began in FY16. The GPS update began in FY18. Operational Flight Program Software (OFF) upgrades for the Cockpit Upgrade program are ongoing to support the upgraded hardware systems. Notes: - The Cockpit Lighting Upgrade kits will be installed at O-level by the squadron at HMX-1 as aircraft are available. - The DTU-7000 effort within the FY18 VH-3D Cockpit Upgrade (OSIP 10-12) software line has been cancelled.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 4 / VH-3D COCKPIT UPGRADE (OSIP 010-12)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-3D				Modification Type: SAFETY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: VH-3D COCKPIT UPGRADE (OSIP 010-12)													
A Kits													
Non-Recurring													
1.2.1) Installation Kits N/R - Organic		- / 8.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.505	
Subtotal: Non-Recurring		- / 8.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 8.505	
B Kits													
Recurring													
2.1.1) VH-3D Cockpit Upgrade Kit - Organic		14 / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.409	
Subtotal: Recurring		- / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.409	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic		- / 8.239	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.239	
Subtotal: Non-Recurring		- / 8.239	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 8.239	
Subtotal: VH-3D COCKPIT UPGRADE (OSIP 010-12)		14 / 17.153	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 17.153	
Subtotal: Procurement, All Modification Items		- / 17.153	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 17.153	
Support (All Modification Items)													
3.2) Data		- / 1.600	- / 0.028	- / 0.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.661	
3.3) Software		- / 7.178	- / 0.839	- / 0.323	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.340	
3.4) Training Equipment		- / 0.500	- / 0.053	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.563	
3.5) Support Equipment		- / 3.308	- / -	- / 0.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.543	
3.6) ILS		- / -	- / -	- / 0.024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.024	
3.7) Other Support		- / 23.077	- / 3.348	- / 0.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.635	
Subtotal: Support		- / 35.663	- / 4.268	- / 0.835	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 40.766	
Installation													
Subtotal: Installation		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)		52.816	4.268	0.835	0.000	0.000	0.000	0.000	0.000	0.000	0.000	57.919	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 4 / VH-3D COCKPIT UPGRADE (OSIP 010-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: VH-3D COCKPIT UPGRADE (OSIP 010-12)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	20.503	55.620	73.053	78.505	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	20.503	55.620	73.053	78.505	Continuing	Continuing
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	20.503	55.620	73.053	78.505	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: DESCRIPTION/JUSTIFICATION: The VH-92A provides safe, reliable, and timely transportation for the President, Vice President, Foreign Heads of State (HoS), and other official parties as directed by the Director of the White House Military Office (WHMO). VH-92A Improvement Program provides near and long term improvements to the fleet, focusing on documented deficiencies related to mission systems, maintainability, and incorporates pre-planned product improvements defined in the VH-92A Capabilities Development Document update in lieu of a Capability Production Document. These modifications and selected component changes are being accomplished by depot level maintenance or field retrofit. Funds will be used to manage, prepare, process and incorporate airframe and avionics Engineering Change Proposals (ECP) based on added capability and corrections of deficiencies, and implement those changes to sustain and improve VH-92A operations. ECPs will be implemented to coincide with resources and aircraft availability. The planned efforts are the forward airstair door modification, Mission Communications System (MCS) follow-on efforts, and incorporation of a fifth multi-function display panel in the cockpit, which is one additional center display, identical to the four existing screens, to increase situational awareness inside the aircraft. Other efforts include Shipboard Interoperability to allow Shipboard Operations, and an Enhanced Visual System (EVS). The forward airstair door requires retrofit to raise the outboard edge of the door to a position equal to or above the aircraft door frame opening when fully open to ensure the door is at or above the Water Line (WL) 256 when fully opened. ASDB Out efforts are to comply with Federal Aviation Administration mandates to improve aircraft navigation in national airspace. Enhanced visual systems are improvements required to increase situational awareness outside of the aircraft during flight operations. Funding throughout the FYDP is for correction of deficiencies. Individual mods will be broken out as they are approved. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The Milestone B Acquisition Decision Memorandum was signed 17 April 2014 and the VH-92A contract for the Engineering and Manufacturing Development (EMD) phase and priced options for production was awarded on 7 May 2014. Four System Demonstration Test Articles (SDTA) aircraft will be delivered during EMD and will be used for Initial Operational Test and Evaluation (IOT&E). The SDTA aircraft will be transitioned to operational use after completion of IOT&E in FY20. This OSIP is a new start in FY21 to begin improvements and modifications to the SDTA aircraft and subsequent VH-92A aircraft after they are delivered. The VH-92A program will have a total of 21 operational aircraft by FY23. Kits in FY21 are for the first four LRIP aircraft.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-92A				Modification Type: SAFETY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)													
A Kits													
Recurring													
1.1.1) 5th Multi Function Display - NonOrganic		- / -	- / -	- / -	- / -	- / -	4 / 3.103	- / -	- / -	- / -	- / -	4 / 3.103	
1.1.2) Forward Air Stair Door - NonOrganic		- / -	- / -	- / -	- / -	- / -	4 / 2.103	- / -	- / -	- / -	- / -	4 / 2.103	
1.1.3) Shipboard Interoperability - NonOrganic		- / -	- / -	- / -	- / -	- / -	4 / 2.802	- / -	- / -	- / -	- / -	4 / 2.802	
1.1.4) ADSB Out - NonOrganic		- / -	- / -	- / -	- / -	- / -	4 / 2.740	- / -	- / -	- / -	- / -	4 / 2.740	
1.1.5) Airframe Modification - Organic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.336	6 / 4.336	6 / 4.556	- / -	18 / 12.228	
1.1.6) EVS Avionics - Organic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 4.435	6 / 5.205	6 / 5.425	- / -	18 / 15.065	
Subtotal: Recurring		- / 0.000	- / -	- / -	- / -	- / -	- / 10.748	- / 7.771	- / 9.541	- / 9.981	- / 0.000	- / 38.041	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic		- / -	- / -	- / -	- / -	- / -	- / -	- / 2.566	- / 16.835	- / 16.741	Continuing	Continuing	
Subtotal: Non-Recurring		- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 2.566	- / 16.835	- / 16.741	Continuing	Continuing	
B Kits													
Recurring													
2.1.1) Airframe Modification - Organic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.784	6 / 3.394	6 / 3.614	- / -	18 / 9.792	
2.1.2) EVS Avionics Modification - Organic		- / -	- / -	- / -	- / -	- / -	- / -	6 / 4.786	6 / 5.774	6 / 5.994	- / -	18 / 16.554	
Subtotal: Recurring		- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 7.570	- / 9.168	- / 9.608	- / 0.000	- / 26.346	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic		- / -	- / -	- / -	- / -	- / -	- / -	- / 5.826	- / 7.006	- / 8.825	Continuing	Continuing	
Subtotal: Non-Recurring		- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 5.826	- / 7.006	- / 8.825	Continuing	Continuing	
Subtotal: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)		- / -	- / -	- / -	- / -	- / -	16 / 10.748	24 / 23.733	24 / 42.550	24 / 45.155	Continuing	Continuing	
Subtotal: Procurement, All Modification Items		- / 0.000	- / -	- / -	- / -	- / -	- / 10.748	- / 23.733	- / 42.550	- / 45.155	Continuing	Continuing	
Support (All Modification Items)													
3.1) Data		- / -	- / -	- / -	- / -	- / -	- / 0.107	- / 1.251	- / 2.092	- / 3.993	Continuing	Continuing	
3.2) Software ⁽³⁾		- / -	- / -	- / -	- / -	- / -	- / 3.351	- / 3.590	- / 4.682	- / 5.137	Continuing	Continuing	
3.3) Training Equipment		- / -	- / -	- / -	- / -	- / -	- / 2.088	- / 5.635	- / 5.635	- / 5.635	Continuing	Continuing	
3.5) ILS		- / -	- / -	- / -	- / -	- / -	- / 0.321	- / 1.596	- / 2.104	- / 2.324	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: VH-92A				Modification Type: SAFETY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
3.6) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.888	- / 12.639	- / 15.990	- / 16.261	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.755	- / 24.711	- / 30.503	- / 33.350	Continuing	Continuing	
Installation													
Modification Item 1 of 1: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 7.176	- / 0.000	- / 0.000	- / 0.000	- / 7.176	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.176	- / -	- / -	- / 0.000	- / 7.176	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	20.503	55.620	73.053	78.505	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0566 / Executive Helicopters Series				Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)												
Manufacturer Information												
Manufacturer Name: Sikorsky - 5th Multifunction Display							Manufacturer Location: Stratford, CT					
Administrative Leadtime (in Months): 3							Production Leadtime (in Months): 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates				Jan 2021								
Delivery Dates				Jan 2022								
Manufacturer Name: Sikorsky - Forward Air Stair Door							Manufacturer Location: Stratford, CT					
Administrative Leadtime (in Months): 3							Production Leadtime (in Months): 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates				Jan 2021								
Delivery Dates				Jan 2022								
Manufacturer Name: Sikorsky - Shipboard Interoperability							Manufacturer Location: Stratford, CT					
Administrative Leadtime (in Months): 3							Production Leadtime (in Months): 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates				Jan 2021								
Delivery Dates				Jan 2022								
Manufacturer Name: Sikorsky - ADSB Out							Manufacturer Location: Stratford, CT					
Administrative Leadtime (in Months): 3							Production Leadtime (in Months): 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates				Jan 2021								
Delivery Dates				Jan 2022								
Installation Information												
Method of Implementation: Contractor Field Modification Team:: Installation Name: 5th Multi Function Display												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)

Installation Information

Method of Implementation: Contractor Field Modification Team:: Installation Name: 5th Multi Function Display

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.044	- / -	- / -	0 / 0.000	4 / 1.044
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.044	- / -	- / -	0 / 0.000	4 / 1.044

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	-	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-	4

Method of Implementation: Contractor Field Modification Team:: Installation Name: Forward Air Stair Door

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.044	- / -	- / -	0 / 0.000	4 / 1.044
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.044	- / -	- / -	0 / 0.000	4 / 1.044

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)

Installation Information

Method of Implementation: Contractor Field Modification Team:: Installation Name: Forward Air Stair Door

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	4

Method of Implementation: Contractor Field Modification Team:: Installation Name: Shipboard Interoperability

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.544	- / -	- / -	0 / 0.000
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.544	- / -	- / -	0 / 0.000	4 / 2.544

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	-	-	4

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0566 / Executive Helicopters Series										Modification Number / Title: 5 / VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: VH-92A IMPROVEMENT PROGRAM (OSIP 006-21)																																							
Installation Information																																							
Method of Implementation: Contractor Field Modification Team:: Installation Name: ADSB Out																																							
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																										
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.544	- / -	- / -	0 / 0.000	4 / 2.544																										
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																										
Total		- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.544	- / -	- / -	0 / 0.000	4 / 2.544																										
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	-	-	-	-	-	-	-	-	-	4								
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	4								
Method of Implementation (Organic): Airframe Modification																														Installation Quantity: 18									
Method of Implementation (Organic): EVS Avionics																														Installation Quantity: 18									
Method of Implementation (Organic): Airframe Modification - Not Installed																														Installation Quantity: 18									
Method of Implementation (Organic): EVS Avionics Modification																														Installation Quantity: 18									
Footnotes: (3) FY21 Software costs represent follow-on effort of Broad Agency Announcement for future communications capabilities currently being developed.																																							

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0566 / Executive Helicopters Series	Modification Number / Title: 6 / Inactive OSIPs

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	432.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	432.847
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	432.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	432.847
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	432.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	432.847
(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:

VH-3D Lift Improvement Program (LIP) OSIP 011-06 completed in FY 2012 and has been moved to In-Active OSIPs.
VH-60N Cockpit Upgrade OSIP 009-02 completed in FY 2016 and has been moved to In-Active OSIPs.
VH-3D/VH-60N Trainer Conversion OSIP 009-11 completed in FY 2016 and has been moved to In-Active OSIPs.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0566 / Executive Helicopters Series					Modification Number / Title: 6 / Inactive OSIPs			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: VH-3D / VH-60N				Modification Type: SAFETY					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.2.1) Inactive OSIPs - Organic ^(*)	- / 432.847	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 432.847	
<i>Subtotal: Procurement</i>	- / 432.847	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 432.847	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	432.847	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	432.847	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0567 / Special Project Acft

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	494.707	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	-	546.244
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	494.707	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	-	546.244
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	494.707	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	-	546.244
<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 Special Projects program modifies and/or replaces obsolete special mission equipment and integrates Quick Reaction Capability (QRC) on P-3 and P-8 aircraft. Procurements vary in each fiscal year and include common Navy systems for increased capability, reduced operator workload and common logistics, procurement of special mission equipment as directed by the Chief of Naval Operations and other emerging requirements. Active Primary Aircraft Authorized inventory is 5 aircraft.

The government is the Lead System Integrator for Hardware and Software upgrades on the aircraft.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0567 / Special Project Acft			
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Intelligence Sensors (OSIP 019-97) (Operational Improvement)				- / 415.298	- / 28.159	- / 9.785	- / 0.000	- / 3.498	- / 3.498
P-3a	2 / Inactive OSIPS (Operational Improvement)				- / 79.409	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 494.707	- / 28.159	- / 9.785	- / 0.000	- / 3.498	- / 3.498

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Intelligence Sensors (OSIP 019-97) (Operational Improvement)				- / 3.542	- / 2.143	- / 2.183	- / 2.227	- / 0.000	- / 466.835
P-3a	2 / Inactive OSIPS (Operational Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 79.409
P-40	Total Gross/Weapon System Cost				- / 3.542	- / 2.143	- / 2.183	- / 2.227	- / -	- / 546.244

*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:
 For FY20 these modification efforts continue to replace obsolescence intelligence collection equipment in five P-3 Special Project aircraft by procurement of special mission equipment as directed by the Chief of Naval Operations.

OCO:
 FY2020 \$3.498M OCO Funds will install new collection capabilities required by the COCOM on SPA aircraft. Specific operational details can be provided in a classified forum.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0567 / Special Project Acft	Modification Number / Title: 1 / Intelligence Sensors (OSIP 019-97)

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	415.298	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	0.000	466.835
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	415.298	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	0.000	466.835
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	415.298	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	0.000	466.835
(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:

DESCRIPTION/JUSTIFICATION:

For FY20 these modification efforts continue to replace obsolescence intelligence collection equipment in five P-3 Special Project aircraft by procurement of special mission equipment as directed by the Chief of Naval Operations.

The government is the Lead System Integrator for Hardware and Software upgrades on the aircraft.

FY2020 \$3.498M OCO Funds will install new collection capabilities required by the COCOM on SPA aircraft. Specific operational details can be provided in a classified forum.

DEVELOPMENT STATUS/MAJOR MILESTONES: Not Applicable

NOTES:

1) FY2018 OCO will fund installs in FY2019

2) FY2019 OCO will fund installs in FY2020

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0567 / Special Project Acft					Modification Number / Title: 1 / Intelligence Sensors (OSIP 019-97)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: P-3B/C			Modification Type: Operational Improvement					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Intelligence Sensors (OSIP 019-97)													
B Kits													
Recurring													
1.1.1) Archived - Organic	- / 86.920	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 86.920	
1.1.2) Mission Unique Equipment - NonOrganic ⁽¹⁾	- / 155.458	- / 18.910	- / 4.329	- / 0.000	- / 1.271	- / 1.271	- / 0.912	- / 0.939	- / 0.947	- / 0.972	- / -	- / 183.738	
Subtotal: Recurring	- / 242.378	- / 18.910	- / 4.329	- / 0.000	- / 1.271	- / 1.271	- / 0.912	- / 0.939	- / 0.947	- / 0.972	- / 0.000	- / 270.658	
Non-Recurring													
1.2.1) Install Equipment N/R - Organic	- / 77.112	- / 3.270	- / 1.655	- / 0.000	- / 1.452	- / 1.452	- / 0.500	- / 0.500	- / 0.500	- / 0.500	- / -	- / 85.489	
1.2.2) BFT/Collection Equipment (Install Equip N/R) - Organic	- / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	
Subtotal: Non-Recurring	- / 77.232	- / 3.270	- / 1.655	- / 0.000	- / 1.452	- / 1.452	- / 0.500	- / 0.500	- / 0.500	- / 0.500	- / 0.000	- / 85.609	
Subtotal: Intelligence Sensors (OSIP 019-97)	- / 319.610	- / 22.180	- / 5.984	- / 0.000	- / 2.723	- / 2.723	- / 1.412	- / 1.439	- / 1.447	- / 1.472	- / -	- / 356.267	
Subtotal: Procurement, All Modification Items	- / 319.610	- / 22.180	- / 5.984	- / 0.000	- / 2.723	- / 2.723	- / 1.412	- / 1.439	- / 1.447	- / 1.472	- / 0.000	- / 356.267	
Support (All Modification Items)													
2.2) Data	- / 7.377	- / 0.245	- / 0.140	- / 0.000	- / 0.140	- / 0.140	- / 0.100	- / 0.105	- / 0.110	- / 0.115	- / -	- / 8.332	
2.3) Training Equipment	- / 11.324	- / 0.200	- / 0.090	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.614	
2.4) BFT/Collection Equipment (Training Equip)	- / 0.181	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.181	
2.5) Support Equipment	- / 0.430	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.430	
2.6) ILS	- / 5.699	- / 0.750	- / 0.550	- / 0.000	- / 0.200	- / 0.200	- / 0.050	- / 0.050	- / 0.050	- / 0.050	- / -	- / 7.399	
2.7) Other Support	- / 54.294	- / 3.112	- / 2.187	- / 0.000	- / 0.300	- / 0.300	- / 0.445	- / 0.299	- / 0.301	- / 0.290	- / -	- / 61.228	
2.9) FY21 OCO Funding	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.290	- / -	- / -	- / -	- / -	- / 1.290	
Subtotal: Support	- / 79.305	- / 4.307	- / 2.967	- / 0.000	- / 0.640	- / 0.640	- / 1.885	- / 0.454	- / 0.461	- / 0.455	- / 0.000	- / 90.474	
Installation													
Modification Item 1 of 1: Intelligence Sensors (OSIP 019-97)													
Subtotal: Installation													
Total													
Total Cost (Procurement + Support + Installation)	415.298	28.159	9.785	0.000	3.498	3.498	3.542	2.143	2.183	2.227	0.000	466.835	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0567 / Special Project Acft										Modification Number / Title: 1 / Intelligence Sensors (OSIP 019-97)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Intelligence Sensors (OSIP 019-97)																															
Manufacturer Information																															
Manufacturer Name: TBD - Operational Improvement															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates		Sep 2018				Sep 2019				Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: Mission Unique Equipment																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 16.383		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 16.383							
FY 2018		- / -		0 / 1.672		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		- / 1.672							
FY 2019		- / -		- / -		0 / 0.834		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		- / 0.834							
FY 2020		- / -		- / -		- / -		0 / 0.000		0 / 0.135		0 / 0.135		- / -		- / -		- / -		- / -		0 / 0.000		- / 0.135							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.245		- / -		- / -		- / -		0 / 0.000		- / 0.245							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.250		- / -		- / -		0 / 0.000		- / 0.250							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.275		- / -		0 / 0.000		- / 0.275							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.300		0 / 0.000		- / 0.300							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		1 / 16.383		0 / 1.672		0 / 0.834		0 / 0.000		0 / 0.135		0 / 0.135		0 / 0.245		0 / 0.250		0 / 0.275		0 / 0.300		0 / 0.000		1 / 20.094							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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
Footnotes: ⁽¹⁾ P-3A In/Out for Total Prior Years should be blank, set to 1 as a workaround.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0567 / Special Project Acft	Modification Number / Title: 2 / Inactive OSIPS

[illegible]**Description:**

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0567 / Special Project Acft						Modification Number / Title: 2 / Inactive OSIPS			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: P-3B/C				Modification Type: Operational Improvement				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPS - Organic ^(*)	- / 79.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 79.409	
<i>Subtotal: Procurement</i>	- / 79.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 79.409	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	79.409	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	79.409	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0569 / T-45 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	904.176	164.191	193.567	186.022	0.000	186.022	166.948	182.495	180.897	185.160	545.852	2,709.308
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	904.176	164.191	193.567	186.022	0.000	186.022	166.948	182.495	180.897	185.160	545.852	2,709.308
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	904.176	164.191	193.567	186.022	0.000	186.022	166.948	182.495	180.897	185.160	545.852	2,709.308
<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:

This line item funds modifications to T-45 Training System (T45TS) which encompasses both aircraft and Ground-Based Training Systems (GBTS). Current inventory is 193 Aircraft. The T-45 Goshawk is a tandem-seat, carrier capable derivative of the existing British Aerospace Hawk aircraft powered by a single Rolls Royce Adour engine. It serves as the aircraft component of the T45TS integrated jet pilot training system. The overall goal of the modifications budgeted is to correct discrepancies and deficiencies discovered after delivery of the aircraft and to commence upgrades to the aircraft cockpit and navigation systems. T-45 aircraft and simulators are facing critical avionics obsolescence and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

Operational Safety and Improvement Program (OSIP) 008-95 - Corrections of Deficiencies was established to resolve safety and reliability issues, improve required mission capabilities and correct in-service deficiencies to aircraft components.

OSIP 003-03 - Engine Surge was established to resolve engine surge critical safety issues.

OSIP 017-04 - Avionics Obsolescence funds continuing avionics obsolescence and DMSMS issues and implements safety related avionics upgrades.

OSIP 022-14 - Service Life Extension Program (SLEP) funds correction of deficiencies discovered in the Service Life Assessment Program (SLAP), which identified risk areas that must be addressed in order to extend the aircraft service life.

OSIP 006-16 - Required Avionics Sustainment Program (RASP) will modify the T45TS with the Automatic Dependent Surveillance-Broadcast Out (ADS-B Out) Capability to comply with the January 1, 2020 Federal Aviation Administration (FAA) National Airspace Systems Mandate as well as other FAA and Navigation mandates. Additionally, the T-45 Navigation source (Global Positioning System ((GPS))) will be updated to address obsolescence.

OSIP 012-19 - Physiological Episode Mitigation funds modifications to the T-45 training system to address aircrew physiological episodes (PE).

The designed service life of the aircraft was 14,400 hours and reduced as a result of Service Life Assessment Program (SLAP) analysis to 13,000 hours, with the average remaining service life of inventory aircraft estimated at 5,291 hours.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0569 / T-45 Series			
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / T-45TS Corrections of Deficiencies (OSIP 008-95) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 309.721	- / 53.568	- / 19.465	- / 24.984	- / 0.000	- / 24.984
P-3a	2 / Engine Surge (OSIP 003-03) (PS Safety)				- / 65.985	- / 32.166	- / 40.751	- / 48.702	- / 0.000	- / 48.702
P-3a	3 / Avionics Obsolescence (OSIP 017-04) (PS Safety)				- / 275.013	- / 32.428	- / 17.796	- / 14.019	- / 0.000	- / 14.019
P-3a	4 / Service Life Extension Program (SLEP) (022-14) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 142.431	- / 16.160	- / 34.805	- / 46.126	- / 0.000	- / 46.126
P-3a	5 / Required Avionics Sustainment Program (RASP) (006-16) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 17.152	- / 29.869	- / 39.516	- / 12.128	- / 0.000	- / 12.128
P-3a	6 / Physiological Episode Mitigation (OSIP 012-19) (PS Safety)				- / 0.000	- / 0.000	- / 41.234	- / 40.063	- / 0.000	- / 40.063
P-3a	7 / Inactive OSIPs (TBD)				- / 93.874	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 904.176	- / 164.191	- / 193.567	- / 186.022	- / 0.000	- / 186.022

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / T-45TS Corrections of Deficiencies (OSIP 008-95) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 26.035	- / 23.150	- / 19.823	- / 18.872	- / 135.976	- / 631.594
P-3a	2 / Engine Surge (OSIP 003-03) (PS Safety)				- / 37.415	- / 35.349	- / 37.517	- / 31.645	- / 131.660	- / 461.190
P-3a	3 / Avionics Obsolescence (OSIP 017-04) (PS Safety)				- / 25.280	- / 53.027	- / 62.601	- / 77.775	- / 89.148	- / 647.087
P-3a	4 / Service Life Extension Program (SLEP) (022-14) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 46.637	- / 49.604	- / 51.622	- / 49.186	- / 180.738	- / 617.309
P-3a	5 / Required Avionics Sustainment Program (RASP) (006-16) (Safety, Reliability, Increased Service Life, Improved Mission Capabilities)				- / 24.038	- / 16.774	- / 4.725	- / 3.044	- / 8.330	- / 155.576
P-3a	6 / Physiological Episode Mitigation (OSIP 012-19) (PS Safety)				- / 7.543	- / 4.591	- / 4.609	- / 4.638	- / 0.000	- / 102.678
P-3a	7 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 93.874
P-40	Total Gross/Weapon System Cost				- / 166.948	- / 182.495	- / 180.897	- / 185.160	- / 545.852	- / 2,709.308

*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 2020 funding request was reduced by \$18.000 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	309.721	53.568	19.465	24.984	0.000	24.984	26.035	23.150	19.823	18.872	135.976	631.594
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	309.721	53.568	19.465	24.984	0.000	24.984	26.035	23.150	19.823	18.872	135.976	631.594
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	309.721	53.568	19.465	24.984	0.000	24.984	26.035	23.150	19.823	18.872	135.976	631.594
<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: This Operational, Safety and Improvement Program (OSIP) funds modifications to the T-45 training system to address correction of deficiencies discovered during test and evaluation or operational use to the entire airframe; its components and sub-assemblies, including related Peculiar Support Equipment (SE), all of which vary in complexity and cost of Non-Recurring Engineering, procurement and installation. The correction of deficiencies Engineering Change Proposals (ECPs) include AIRFRAME ECPs (Both STRUCTURAL and SYSTEMS) and ENGINE/POWER AND PROPULSION ECPs. STRUCTURAL ECPs: The structural portion of this OSIP provides for several structural ECPs to correct safety of flight related issues and deficiencies in meeting airframe original design life of 14,400 Flight Hours. ECPs for Wing Leading Edge Panels, Wing Centerline Joint, Flap Center Hinge Arm, Canopy Frame, Canopy Frame Longeron, Wing Tip, Gas Turbine Starter Bracket, Horizontal Stabilizers, Frame 24 Crossbeam Lugs and Side Skin, Frame 7 Upper Cross Tie, Wing Leading Edge, Frame 29 Lower Flange, Uplock Beam Forward Attach, Slat Track Rib 5 Downstop Bolt, Rib 2 T-Clip, Frame 28/32 Boundary/ Vertical Fin, Frame 33 Structure, Inlet Close-Out Fuel and Tank Ceiling Stiffener, Airframe Engine Mount, Frame 21 Structure, Main Landing Gear (MLG) Bay Tilted & Fasteners, MLG Side Stay Support, Longitudinal Systems Viscous, Frame 20 Lower Longeron/Sidebrace, Frame 12 Vertical Splice, Frame 1 Structures and Ballast provisions, Nose Landing Gear Trunnion Beam, Slat Actuator Fitting Angle, Structure Life Improvement, Speed Brake and Backup Structure, Engine Mount Link Option, Stabilizer Back-Up Structures, Fuselage/Frame 10 Door, and Fin Bracket Lever Box Assembly, Over Center Locking Mechanism, Arrestor Beam Back-up Structure, Wing Lower Aux Spar Doubler, Frame 16 Lateral Link, Frame 17/18 structures and Fuselage Sideskin Fasteners. SYSTEMS ECPs: Modifications to the airframe, other than structural deficiencies, are also required to ensure safety of flight, aero-performance and maintainability to enable satisfactory Pilot Training Requirements levels. This Airframe OSIP affects several airframe components and their sub-assemblies including: forward, center and aft fuselage components, Landing Gear, Nose Wheel Steering, arresting hook, tail cone, wing, horizontal and vertical control surfaces (Aileron Rudder), flaps, canopy/windscreen, Aircrew Systems, Ejection system, including lanyard retention collar, ejection control handle, sequencer, barostatic release unit, seat pan, head box and associated components, hydraulic system, and hyd system quick disconnects, oxygen system; to include oxygen monitor, oxygen concentrator and ancillary components (bleed air shutoff valve, heat exchanger, temperature switch, water separator, bleed air piping, plenum and associated indicator systems/annunciators), electrical system, fuel system, throttle, instrumentation systems, environmental controls, communications, navigation, emergency systems, and associated Peculiar Support Equipment (PSE), nosewheel steering test set, hydraulic test stand, cabin pressure test set, Easily Manipulated Mechanical Arm, frame 33 tail plane fitting tool, and landing gear (dummy gear). ENGINE/POWER AND PROPULSION ECPs: Modifications under this category include modifications to the Engine, Gas Turbine Starter, and Electrical System which will increase the reliability, maintainability and safety of these systems. Engine modifications include Engine Mounts, Fuel Pumps, Combustion Chamber, Compressors, Nozzle Guide Vanes, Drive Systems, Oil System, Air Systems, Turbines, Fuel Distribution and Control and modifications to address engine surge/compressor stall. Gas Turbine Starter modifications include starting system, air turbine starter, and air producer. Electrical modifications include generator/distribution/wiring modifications.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Other Support and Non-Recurring Engineering costs fund Government labor to perform engineering, test, logistics and financial management tasks in order to execute modifications associated with this OSIP. This additional support will be performed in accordance with the Federal Management Regulation and Naval Air Systems Command Policy.		
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY 2020 and out provides funds for STRUCTURAL ECPs, SYSTEMS ECPs and ENGINE/PROPULSION & POWER ECPs.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T-45TS			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capabilities					Related RDT&E PEs: 0702207N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: T-45TS Corrections of Deficiencies (OSIP 008-95)													
A Kits													
Recurring													
1.1.1) Airframe Structural - NonOrganic ⁽¹⁾		823 / 16.113	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	823 / 16.113	
1.1.2) Sub 14.4K FLE Deficiencies - NonOrganic ⁽²⁾		2 / 0.650	12 / 1.560	24 / 2.900	24 / 2.952	- / -	24 / 2.952	24 / 3.005	24 / 3.059	24 / 3.115	24 / 3.171	35 / 4.716	193 / 25.128
1.1.3) Hookshank LSP - Organic		60 / 0.126	24 / 0.052	24 / 0.053	24 / 0.053	- / -	24 / 0.053	24 / 0.054	24 / 0.055	13 / 0.030	- / -	- / -	193 / 0.423
1.1.4) Nose Wheel Steering System - NonOrganic		- / -	- / -	66 / 0.706	66 / 0.725	- / -	66 / 0.725	61 / 0.682	- / -	- / -	- / -	- / -	193 / 2.113
1.1.5) NACES Retrofit Upgrade - NonOrganic		- / -	- / -	4 / 0.089	12 / 0.271	- / -	12 / 0.271	48 / 1.101	48 / 1.121	48 / 1.141	48 / 1.162	178 / 4.393	386 / 9.278
1.1.6) Water Separators - NonOrganic		200 / 1.998	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	200 / 1.998
1.1.7) Automatic Backup Oxygen System - Organic ⁽³⁾		- / -	40 / 17.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 17.200
1.1.8) Archived ECPs - Organic ⁽⁴⁾		1,844 / 140.272	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,844 / 140.272
Subtotal: Recurring		- / 159.159	- / 18.812	- / 3.748	- / 4.001	- / -	- / 4.001	- / 4.842	- / 4.235	- / 4.286	- / 4.333	- / 9.109	- / 212.525
Non-Recurring													
1.2.1) NON-RECURRING COSTS - Organic ⁽⁵⁾		- / 24.561	- / 7.197	- / 6.639	- / 7.032	- / -	- / 7.032	- / 7.627	- / 5.223	- / 3.489	- / 2.509	- / -	- / 64.277
Subtotal: Non-Recurring		- / 24.561	- / 7.197	- / 6.639	- / 7.032	- / -	- / 7.032	- / 7.627	- / 5.223	- / 3.489	- / 2.509	- / 0.000	- / 64.277
B Kits													
Recurring													
2.1.1) NACES Propellant - Organic		- / -	- / -	14 / 0.036	96 / 0.253	- / -	96 / 0.253	96 / 0.255	96 / 0.260	84 / 0.231	- / -	- / -	386 / 1.035
2.1.2) Oxygen Concentrator (Hypoxia Prevention) - NonOrganic ⁽⁶⁾		- / -	2 / 0.091	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.091
2.1.3) Advanced Bleed Air Shutoff/Purge Valve - Organic ⁽⁷⁾		- / -	99 / 1.919	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	99 / 1.919
2.1.4) Automatic Backup Oxygen System - Organic ⁽⁸⁾		- / -	40 / 0.640	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 0.640
2.1.5) Archived B Kits - Organic		623 / 10.526	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	623 / 10.526
Subtotal: Recurring		- / 10.526	- / 2.650	- / 0.036	- / 0.253	- / -	- / 0.253	- / 0.255	- / 0.260	- / 0.231	- / -	- / 0.000	- / 14.211
Non-Recurring													
2.2.1) INSTALL EQUIPMENT N/R - Organic		- / 10.271	- / 8.365	- / 0.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 19.076
Subtotal: Non-Recurring		- / 10.271	- / 8.365	- / 0.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 19.076

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T-45TS				Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capabilities					Related RDT&E PEs: 0702207N				

	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Financial Plan	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<i>Subtotal: T-45TS Corrections of Deficiencies (OSIP 008-95)</i>	3,552 / 204.517	217 / 37.024	132 / 10.863	222 / 11.286	- / -	222 / 11.286	253 / 12.724	192 / 9.718	169 / 8.006	72 / 6.842	213 / 9.109	5,022 / 310.089
<i>Subtotal: Procurement, All Modification Items</i>	- / 204.517	- / 37.024	- / 10.863	- / 11.286	- / -	- / 11.286	- / 12.724	- / 9.718	- / 8.006	- / 6.842	- / 9.109	- / 310.089
Support (All Modification Items)												
3.2) Data	- / 0.809	- / -	- / 0.038	- / 0.038	- / -	- / 0.038	- / 0.039	- / 0.040	- / 0.041	- / 0.041	- / 0.464	- / 1.510
3.3) Training Equipment	- / 7.054	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.054
3.4) Support Equipment	- / 5.054	- / 1.750	- / 0.054	- / 0.055	- / -	- / 0.055	- / 0.056	- / 0.057	- / 0.058	- / 0.059	- / 0.661	- / 7.804
3.5) ILS	- / 2.345	- / 1.471	- / 0.964	- / 0.981	- / -	- / 0.981	- / 0.999	- / 1.017	- / 1.035	- / 1.054	- / 11.803	- / 21.669
3.6) Other Support	- / 85.664	- / 9.537	- / 7.544	- / 7.680	- / -	- / 7.680	- / 7.813	- / 7.965	- / 8.090	- / 8.237	- / 106.791	- / 249.321
<i>Subtotal: Support</i>	- / 100.926	- / 12.758	- / 8.600	- / 8.754	- / -	- / 8.754	- / 8.907	- / 9.079	- / 9.224	- / 9.391	- / 119.719	- / 287.358
Installation												
<i>Modification Item 1 of 1: T-45TS Corrections of Deficiencies (OSIP 008-95)</i>	- / 4.278	- / 3.786	- / 0.002	- / 4.944	- / 0.000	- / 4.944	- / 4.404	- / 4.353	- / 2.593	- / 2.639	- / 7.148	- / 34.147
<i>Subtotal: Installation</i>	- / 4.278	- / 3.786	- / 0.002	- / 4.944	- / -	- / 4.944	- / 4.404	- / 4.353	- / 2.593	- / 2.639	- / 7.148	- / 34.147
Total												
Total Cost (Procurement + Support + Installation)	309.721	53.568	19.465	24.984	0.000	24.984	26.035	23.150	19.823	18.872	135.976	631.594

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: T-45TS Corrections of Deficiencies (OSIP 008-95)												
Manufacturer Information												
Manufacturer Name: TBD							Manufacturer Location: TBD					
Administrative Leadtime (in Months): 1							Production Leadtime (in Months): 11					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates		Nov 2018	Nov 2019	Nov 2020								
Delivery Dates		Oct 2019	Oct 2020	Oct 2021								
Manufacturer Name: Various - Airframe Structural							Manufacturer Location: Various					
Administrative Leadtime (in Months): 0							Production Leadtime (in Months): 0					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates												
Delivery Dates												
Installation Information												
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: AIRFRAME STRUCTURAL												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	720 / 3.778	82 / 2.442	- / -	21 / 0.595	0 / 0.000	21 / 0.595	- / -	- / -	- / -	- / -	0 / 0.000	823 / 6.815
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	720 / 3.778	82 / 2.442	- / -	21 / 0.595	0 / 0.000	21 / 0.595	- / -	- / -	- / -	- / -	0 / 0.000	823 / 6.815

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Exhibit P-3a, Individual Modification: PB 2020 Navy																							Date: March 2019								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0569 / T-45 Series											Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)									
ID Code (A=Service Ready, B=Not Service Ready) :																	MDAP/MAIS Code:														
Modification Item 1 of 1: T-45TS Corrections of Deficiencies (OSIP 008-95)																															
Installation Information																															
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: AIRFRAME STRUCTURAL																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
		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	720	20	21	20	21	-	-	-	-	6	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	823
Out	720	20	21	20	21	-	-	-	-	6	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	823
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: T-45TS CORR OF DEFICIENCIES (OSIP 008-95)																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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		200 / 0.500	2 / 1.344	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	202 / 1.844																		
FY 2018		- / -	- / -	14 / 0.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	14 / 0.002																		
FY 2019		- / -	- / -	- / -	90 / 4.349	0 / 0.000	90 / 4.349	4 / 0.013	- / -	- / -	- / -	0 / 0.000	94 / 4.362																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	90 / 4.391	12 / 0.040	- / -	- / -	0 / 0.000	102 / 4.431																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	85 / 4.313	48 / 0.162	- / -	0 / 0.000	133 / 4.475																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 2.431	48 / 0.165	0 / 0.000	72 / 2.596																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 2.474	48 / 0.168	72 / 2.642																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 2.690	72 / 2.690																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	213 / 4.290	213 / 4.290																		
Total		200 / 0.500	2 / 1.344	14 / 0.002	90 / 4.349	0 / 0.000	90 / 4.349	94 / 4.404	97 / 4.353	72 / 2.593	72 / 2.639	333 / 7.148	974 / 27.332																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
		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	200	-	-	2	-	3	3	4	4	22	23	22	23	22	23	22	27	21	21	21	34	6	6	6	54	6	6	6	54	333	974
Out	200	-	-	-	2	-	3	4	4	19	23	22	23	22	23	22	27	21	21	21	34	6	6	6	54	6	6	6	54	339	974
Method of Implementation (Organic): Hookshank LSP																															
																							Installation Quantity: 193								
Method of Implementation (Organic): Automatic Backup Oxygen System - Not Installed																															
																							Installation Quantity: 40								

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 1 / T-45TS Corrections of Deficiencies (OSIP 008-95)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: T-45TS Corrections of Deficiencies (OSIP 008-95)		
Installation Information		
Method of Implementation (Organic): Archived ECPs		Installation Quantity: 1844
Method of Implementation (Organic): NACES Propellant		Installation Quantity: 386
Method of Implementation (Organic): Advanced Bleed Air Shutoff/Purge Valve		Installation Quantity: 99
Method of Implementation (Organic): Automatic Backup Oxygen System - Not Installed		Installation Quantity: 40
Method of Implementation (Organic): Archived B Kits - Not Installed		Installation Quantity: 623
Footnotes: ⁽¹⁾ 1.1.1) Airframe Structural: Installation of kits will continue through FY 2020. ⁽²⁾ 1.1.2 FY 2019 installations funded with FY 2018 dollars due to Congressional reduction. ⁽³⁾ 1.1.7) Automatic Backup Oxygen System: Required for the mitigation of T-45 physiological episodes. Effort migrates to OSIP 012-19 in FY19. Installs will be funded under OSIP 012-19. ⁽⁴⁾ 1.1.8 Increase is a correction to include Prior Year installation cost for archived ECPs. ⁽⁵⁾ 1.2.1 Non-Recurring Costs: Increase in FY 2020 - 2021 for Subsystem Service Life Assessment Program (SLAP) identified Engineering Change Proposals. ⁽⁶⁾ 2.1.2) Oxygen Concentrator (Hypoxia Prevention): Required for the mitigation of T-45 physiological episodes. Effort migrated to OSIP 012-19 in FY 2019. ⁽⁷⁾ 2.1.3) Advanced Bleed Air Shutoff/Purge Valve: Required for the mitigation of T-45 physiological episodes. Effort migrated to OSIP 012-19 in FY 2019. ⁽⁸⁾ 2.1.4) Automatic Backup Oxygen System: Required for the mitigation of T-45 physiological episodes. Effort migrated to OSIP 012-19 in FY 2019.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 2 / Engine Surge (OSIP 003-03)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	65.985	32.166	40.751	48.702	0.000	48.702	37.415	35.349	37.517	31.645	131.660	461.190
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	65.985	32.166	40.751	48.702	0.000	48.702	37.415	35.349	37.517	31.645	131.660	461.190
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	65.985	32.166	40.751	48.702	0.000	48.702	37.415	35.349	37.517	31.645	131.660	461.190
(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 Operational Safety and Improvement Program (OSIP) funds modifications to the T-45 training system to address the safety-of-flight risk known as surge stall. T-45 engine surge is a critical safety concern for a single engine training aircraft with over 900 surge events documented, including over 70 surges requiring engine shutdown and restart emergency action. All elements of the T-45 training system (wings, fuselage, engine, etc.) contribute to the incidences of surge stall. The F405 engine continues to experience surge stall events and the funding is for the recurring and non-recurring activities set forth in this OSIP that are on-going through the Future Years Defense Program (FYDP) and the out-years. Kits include modifications to air vehicle, engine and fuel control system.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Installation continues in FY 2020 for Inlet modification retrofit kits. Non-Recurring Engineering efforts to modify the F405-RR-401 engine and fuel system continue in FY 2019 with kit procurement to start in FY 2023. Retrofit kit procurements for engine compressor stator vane modifications began in FY 2018 with installations occurring at O&I Level.

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Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 2 / Engine Surge (OSIP 003-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T-45TS			Modification Type: PS Safety					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Airframe Kits - Organic ^(*) (9)	118 / 2.283	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	118 / 2.283	
1.1.2) Static Inverter Mod - NonOrganic ⁽¹⁰⁾ Installation 1 of 3	200 / 1.633	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	200 / 1.633	
1.1.3) AF Inlet Mod Kits - NonOrganic Installation 2 of 3	4 / 3.362	15 / 9.607	24 / 13.844	36 / 21.181	- / -	36 / 21.181	36 / 21.605	36 / 22.037	36 / 22.477	6 / 3.821	- / -	193 / 117.934	
1.1.4) Engine Kits O & I Level - Organic ^(*)	82 / 0.291	41 / 0.180	56 / 0.381	20 / 0.224	- / -	20 / 0.224	20 / 0.228	20 / 0.232	20 / 0.236	20 / 0.240	73 / 0.893	352 / 2.905	
1.1.5) Fuel System Kits O&I - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.000	29 / 14.500	162 / 81.000	193 / 96.500	
1.1.6) Airframe Fuel System Kits - NonOrganic Installation 3 of 3	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.250	29 / 3.625	162 / 20.250	193 / 24.125	
1.1.7) Engine Stator Vane Modification Kits - Organic ^(*) (11)	- / -	25 / 10.017	25 / 10.197	25 / 10.381	- / -	25 / 10.381	- / -	- / -	- / -	- / -	- / -	75 / 30.595	
1.2.1) Non-Recurring Engineering - Organic ^(*)	- / 28.216	- / -	- / 0.625	- / 2.333	- / -	- / 2.333	- / 2.855	- / 2.513	- / 0.613	- / 0.448	- / 0.720	- / 38.323	
2.1.1) Install Equipment - Organic ^(*)	- / 2.985	- / -	- / 0.202	- / 0.202	- / -	- / 0.202	- / 0.202	- / 0.202	- / 0.204	- / 0.207	- / 0.212	- / 4.416	
2.1.2) E-1 Harness - Organic ^(*)	199 / 0.260	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	199 / 0.260	
2.2.1) INSTALL EQUIPMENT N/R - Organic ^(*)	- / -	- / -	- / 0.998	- / 1.014	- / -	- / 1.014	- / 1.030	- / 1.042	- / 1.061	- / 1.080	- / 5.886	- / 12.111	
Subtotal: Procurement	- / 39.030	- / 19.804	- / 26.247	- / 35.335	- / -	- / 35.335	- / 25.920	- / 26.026	- / 25.841	- / 23.921	- / 108.961	- / 331.085	
Support													
3.2) Data	- / 0.651	- / 0.050	- / 0.051	- / 0.052	- / -	- / 0.052	- / 0.053	- / 0.054	- / 0.055	- / 0.056	- / 7.054	- / 8.076	
3.3) Training Equipment	- / 0.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.025	
3.4) Support Equipment ⁽¹²⁾	- / 5.144	- / 4.774	- / 1.573	- / 0.784	- / -	- / 0.784	- / 0.798	- / 0.813	- / 3.019	- / 1.133	- / -	- / 18.038	
3.5) ILS ⁽¹³⁾	- / 2.024	- / 4.082	- / 8.459	- / 8.612	- / -	- / 8.612	- / 5.958	- / 3.685	- / 3.745	- / 1.587	- / -	- / 38.152	
3.6) Other Support	- / 19.111	- / 2.462	- / 2.506	- / 2.551	- / -	- / 2.551	- / 2.597	- / 2.644	- / 2.692	- / 2.740	- / 14.358	- / 51.661	
3.7) Interim Contractor Support	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500	- / 0.500	
Subtotal: Support	- / 26.955	- / 11.368	- / 12.589	- / 11.999	- / -	- / 11.999	- / 9.406	- / 7.196	- / 9.511	- / 5.516	- / 21.912	- / 116.452	
Installation													
Installation 1 of 3: Static Inverter Mod	- / -	- / 0.594	- / 1.075	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.669	
Installation 2 of 3: AF Inlet Mod Kits	- / -	- / 0.400	- / 0.840	- / 1.368	- / 0.000	- / 1.368	- / 2.089	- / 2.127	- / 2.165	- / 2.204	- / 0.374	- / 11.567	
Installation 3 of 3: Airframe Fuel System Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.004	- / 0.413	- / 0.417	
Subtotal: Installation	- / 0.000	- / 0.994	- / 1.915	- / 1.368	- / -	- / 1.368	- / 2.089	- / 2.127	- / 2.165	- / 2.208	- / 0.787	- / 13.653	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series						Modification Number / Title: 2 / Engine Surge (OSIP 003-03)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: T-45TS				Modification Type: PS Safety				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	65.985	32.166	40.751	48.702	0.000	48.702	37.415	35.349	37.517	31.645	131.660	461.190	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 2 / Engine Surge (OSIP 003-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: Static Inverter Mod																															
Manufacturer Information																															
Manufacturer Name: L-3 Static Inverter Mod															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Static Inverter Mod																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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		- / -	72 / 0.594		128 / 1.075		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		200 / 1.669								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	72 / 0.594		128 / 1.075		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		200 / 1.669								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	64	64	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200
Out	-	-	-	8	64	64	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 2 / Engine Surge (OSIP 003-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: AF Inlet Mod Kits																															
Manufacturer Information																															
Manufacturer Name: Boeing - AF Inlet Mod Kits														Manufacturer Location: St. Louis, MO																	
Administrative Leadtime <i>(in Months)</i> : 1														Production Leadtime <i>(in Months)</i> : 11																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jun 2018				Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023					
Delivery Dates		May 2019				Oct 2019				Oct 2020				Oct 2021				Nov 2022				Nov 2023				Nov 2023					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: AF Inlet Mod Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.400		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.400								
FY 2018		- / -	- / -		15 / 0.840		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		15 / 0.840								
FY 2019		- / -	- / -		- / -		24 / 1.368		0 / 0.000		24 / 1.368		- / -		- / -		- / -		- / -		0 / 0.000		24 / 1.368								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		36 / 2.089		- / -		- / -		- / -		0 / 0.000		36 / 2.089								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		36 / 2.127		- / -		- / -		0 / 0.000		36 / 2.127								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		36 / 2.165		- / -		0 / 0.000		36 / 2.165								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		36 / 2.204		0 / 0.000		36 / 2.204						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.374		6 / 0.374						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	4 / 0.400		15 / 0.840		24 / 1.368		0 / 0.000		24 / 1.368		36 / 2.089		36 / 2.127		36 / 2.165		36 / 2.204		6 / 0.374		193 / 11.567								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	7	8	6	6	6	6	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	6	193
Out	-	-	-	2	2	-	-	7	8	6	6	6	6	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	6	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 2 / Engine Surge (OSIP 003-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 3: Airframe Fuel System Kits																															
Manufacturer Information																															
Manufacturer Name: TBD - Airframe Fuel System Kits															Manufacturer Location: TBD - Loc																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Jan 2023				Jan 2024					
Delivery Dates																						Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Airframe Fuel System Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.004		0 / 0.000		2 / 0.004					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		29 / 0.063		29 / 0.063					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		162 / 0.350		162 / 0.350					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.004		191 / 0.413		193 / 0.417					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	191	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	191	193
Footnotes: ⁽⁹⁾ 1.1.1 Prior Year amount reduced by 200 because the Static Inverter modifications were previously accounted for under Airframe Kits but have since been moved to a separate line. ⁽¹⁰⁾ 1.1.2) Static Inverter Mod: Installations completing in FY 2019. ⁽¹¹⁾ 1.1.7) Engine Stator Vane modification kit procurement started in FY 2018. Installs will be at O&I Level.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 2 / Engine Surge (OSIP 003-03)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽¹²⁾ 3.4) Support Equipment: Increase in FY 2023 because inlet modification will necessitate a configuration change on Support Equipment to continue to support the retrofit line through the life of the installations. ⁽¹³⁾ 3.5) ILS: FY 2019 and out supports Inlet Mod full rate retrofit. Associated growth is based on install schedule and is necessary to prevent work stoppages and delay to the mod line.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	275.013	32.428	17.796	14.019	0.000	14.019	25.280	53.027	62.601	77.775	89.148	647.087
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	275.013	32.428	17.796	14.019	0.000	14.019	25.280	53.027	62.601	77.775	89.148	647.087
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	275.013	32.428	17.796	14.019	0.000	14.019	25.280	53.027	62.601	77.775	89.148	647.087
<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:

This Operational Safety Improvement Program (OSIP) funds modifications to the T-45 training system to address Avionics obsolescence, performance, and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues.

This OSIP includes efforts that address avionics (and associated software), and supporting sub-system modifications and/or upgrades to address safety, reliability, maintainability, obsolescence and Diminishing Manufacturing Source (DMSMS) requirements. Modifications may also be driven by new cyber security requirements. Efforts also fund changes to training and support equipment to maintain aircraft concurrency and supportability.

Current Engineering Change Proposals (ECPs) include: Mission Data Processer (MDP), Pilot Display Unit (PDU)/Heads-Up Display (HUD) and the HUD camera, Tactical Air Navigation (TACAN), the ARC-182 radio, Avionics Corrections of Deficiencies, Almanac Loading System, communication systems, navigation systems and the subsystem which includes Virtual Mission Training System (VMTS).

AVIONICS/GROUND BASED TRAINING SYSTEMS: Modifications to the Avionics will be required to update the MDP, PDU/Heads-Up Display (HUD) and the HUD camera, the ARC-182 radio and those avionic components associated with the affected aircraft systems.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Continue incorporation of Engineering Change Proposals in FY 2020.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: T-45TS A/C			Modification Type: PS Safety					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) DDS (CSMU/CP/DAU) - NonOrganic Installation 1 of 6	201 / 1.621	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	201 / 1.621
1.1.2) HUD Cameras - NonOrganic ⁽¹⁴⁾ Installation 2 of 6	- / -	67 / 0.066	67 / 0.067	59 / 0.060	- / -	59 / 0.060	- / -	- / -	- / -	- / -	- / -	193 / 0.193
1.1.3) ARC - 182 Radio Obsolescence - NonOrganic ⁽¹⁵⁾ Installation 3 of 6	- / -	- / -	- / -	3 / 0.028	- / -	3 / 0.028	21 / 0.198	29 / 0.278	44 / 0.429	46 / 0.457	50 / 0.506	193 / 1.896
1.1.4) TACAN Obsolescence - NonOrganic ⁽¹⁶⁾ Installation 4 of 6	- / -	- / -	- / -	3 / 0.059	- / -	3 / 0.059	21 / 0.424	29 / 0.596	44 / 0.920	46 / 0.979	50 / 1.083	193 / 4.061
1.1.5) HUD/PDU Obsolescence - NonOrganic ⁽¹⁷⁾ Installation 5 of 6	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.031	34 / 0.358	45 / 0.482	60 / 0.654	51 / 0.566	193 / 2.091
1.1.6) Archive - Organic ^(*)	- / 73.472	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 73.472
1.2.1) NR Engineering - Organic ^(*)	- / 16.636	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.636
2.1.1) HUD Cameras - Organic ^(*) ⁽¹⁸⁾	- / -	67 / 2.010	67 / 2.046	59 / 1.834	- / -	59 / 1.834	- / -	- / -	- / -	- / -	- / -	193 / 5.890
2.1.2) Subsystems ECPs - Organic ^(*) ⁽¹⁹⁾	100 / 1.260	- / -	- / -	28 / 1.729	- / -	28 / 1.729	28 / 1.760	37 / 2.368	- / -	- / -	- / -	193 / 7.117
2.1.3) DMSMS ECPs - Organic ^(*) ⁽²⁰⁾	- / -	- / -	- / -	75 / 1.008	- / -	75 / 1.008	68 / 0.932	99 / 1.394	68 / 0.970	50 / 0.726	- / -	360 / 5.030
2.1.4) ARC-182 Radio Obsolescence - Organic ^(*) ⁽²¹⁾	- / -	- / -	- / -	3 / 1.171	- / -	3 / 1.171	21 / 8.194	29 / 11.519	44 / 17.792	46 / 18.935	50 / 20.952	193 / 78.563
2.1.5) TACAN Obsolescence - Organic ^(*) ⁽²²⁾	- / -	4 / 0.442	- / -	- / -	- / -	- / -	21 / 3.661	29 / 5.146	44 / 7.949	46 / 8.459	50 / 9.361	194 / 35.018
2.1.6) HUD PDU - Organic ^(*) ⁽²³⁾	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.500	34 / 17.209	45 / 22.838	60 / 30.998	51 / 26.823	193 / 99.368
2.1.7) Next Gen Multi Function Test Set - Organic ^(*)	- / -	114 / 1.568	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	114 / 1.568
2.1.8) Mission Display Processor - NonOrganic ⁽²⁴⁾ Installation 6 of 6	- / -	- / -	- / -	5 / 0.000	- / -	5 / 0.000	64 / 0.000	64 / 0.000	60 / 0.000	- / -	- / -	193 / 0.000
2.1.9) Archived B Kits - Organic ^(*)	1,246 / 93.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,246 / 93.080
2.2.1) Subsystem ECPs - Organic ^(*) ⁽²⁵⁾	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 1.130	- / 4.455	- / 0.594	- / 4.973	- / -	- / 11.652
2.2.2) DMSMS ECPs - Organic ^(*) ⁽²⁶⁾	- / 4.273	- / -	- / -	- / 0.840	- / -	- / 0.840	- / 0.500	- / 0.500	- / 0.509	- / 0.522	- / 6.878	- / 14.022
2.2.3) DDS (DAU) - Organic ^(*)	- / 2.176	- / 1.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.317
2.2.4) ARC-182 Radio Obsolescence - Organic ^(*) ⁽²⁷⁾	- / -	- / 5.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.000
2.2.5) TACAN Obsolescence - Organic ^(*) ⁽²⁸⁾	- / -	- / 6.729	- / 2.843	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.572
2.2.6) HUD PDU Obsolescence - Organic ^(*)	- / -	- / 6.000	- / 6.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.000
Subtotal: Procurement	- / 192.518	- / 22.956	- / 10.956	- / 7.229	- / -	- / 7.229	- / 18.330	- / 43.823	- / 52.483	- / 66.703	- / 66.169	- / 481.167
Support												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Models of Systems Affected: T-45TS A/C			Modification Type: PS Safety					Related RDT&E PEs:				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
3.3) Training Equipment	6 / 30.355	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 30.355
3.4) Support Equipment N/R	- / 0.720	- / 0.217	- / 0.059	- / 0.060	- / -	- / 0.060	- / 0.064	- / 0.069	- / 0.074	- / 0.074	- / 0.250	- / 1.587
3.5) ILS	- / 18.091	- / 3.293	- / 2.015	- / 2.010	- / -	- / 2.010	- / 1.853	- / 1.886	- / 1.920	- / 1.955	- / 5.524	- / 38.547
3.6) Other Support	- / 32.121	- / 5.543	- / 4.439	- / 4.515	- / -	- / 4.515	- / 4.588	- / 4.674	- / 4.742	- / 4.823	- / 10.988	- / 76.433
Subtotal: Support	- / 81.287	- / 9.053	- / 6.513	- / 6.585	- / -	- / 6.585	- / 6.505	- / 6.629	- / 6.736	- / 6.852	- / 16.762	- / 146.922
Installation												
Installation 1 of 6: DDS (CSMU/CP/DAU)	- / 1.208	- / 0.419	- / 0.132	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.759
Installation 2 of 6: HUD Cameras	- / -	- / -	- / 0.195	- / 0.205	- / 0.000	- / 0.205	- / 0.184	- / -	- / -	- / -	- / 0.000	- / 0.584
Installation 3 of 6: ARC - 182 Radio Obsolescence	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.051	- / 0.363	- / 0.511	- / 0.789	- / 1.753	- / 3.467
Installation 4 of 6: TACAN Obsolescence	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.090	- / 0.641	- / 0.902	- / 1.393	- / 3.093	- / 6.119
Installation 5 of 6: HUD/PDU Obsolescence	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035	- / 0.405	- / 0.546	- / 1.371	- / 2.357
Installation 6 of 6: Mission Display Processor	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	- / 1.536	- / 1.564	- / 1.492	- / 0.000	- / 4.712
Subtotal: Installation	- / 1.208	- / 0.419	- / 0.327	- / 0.205	- / -	- / 0.205	- / 0.445	- / 2.575	- / 3.382	- / 4.220	- / 6.217	- / 18.998
Total												
Total Cost (Procurement + Support + Installation)	275.013	32.428	17.796	14.019	0.000	14.019	25.280	53.027	62.601	77.775	89.148	647.087

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 6: DDS (CSMU/CP/DAU)																															
Manufacturer Information																															
Manufacturer Name: Physical Optics CORP - DDS (CSMU/CP/DAU)															Manufacturer Location: Torrance, CA																
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: DDS (CSMU/CP/DAU)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		140 / 1.208		46 / 0.419		15 / 0.132		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		201 / 1.759					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		140 / 1.208		46 / 0.419		15 / 0.132		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		201 / 1.759					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	140	11	11	12	12	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	
Out	140	11	11	12	12	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 6: HUD Cameras																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 5															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020																					
Delivery Dates						Oct 2019				Oct 2020																					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: HUD Cameras																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		67 / 0.195		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		67 / 0.195					
FY 2019		- / -		- / -		- / -		67 / 0.205		0 / 0.000		67 / 0.205		- / -		- / -		- / -		- / -		- / -		0 / 0.000		67 / 0.205					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		59 / 0.184		- / -		- / -		- / -		- / -		0 / 0.000		59 / 0.184					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		67 / 0.195		67 / 0.205		0 / 0.000		67 / 0.205		59 / 0.184		- / -		- / -		- / -		- / -		0 / 0.000		193 / 0.584					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	17	17	17	16	17	17	17	14	15	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	193
Out	-	-	-	-	-	16	17	17	17	16	17	17	17	14	15	15	15	-	-	-	-	-	-	-	-	-	-	-	-	-	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 6: ARC - 182 Radio Obsolescence																															
Manufacturer Information																															
Manufacturer Name: TBD														Manufacturer Location: TBD																	
Administrative Leadtime (in Months): 4														Production Leadtime (in Months): 8																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Drive-In:: Installation Name: ARC - 182 Radio Obsolescence																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.051		- / -		- / -		- / -		0 / 0.000		3 / 0.051					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 0.363		- / -		- / -		0 / 0.000		21 / 0.363					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		29 / 0.511		- / -		0 / 0.000		29 / 0.511					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		44 / 0.789		0 / 0.000		44 / 0.789					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		46 / 0.840		46 / 0.840					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 0.913		50 / 0.913					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.051		21 / 0.363		29 / 0.511		44 / 0.789		96 / 1.753		193 / 3.467					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	-	5	5	5	6	7	7	7	8	11	11	11	11	96	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	5	5	5	6	7	7	7	8	11	11	11	11	96	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 6: TACAN Obsolescence																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Drive-In:: Installation Name: TACAN Obsolescence																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.090		- / -		- / -		- / -		0 / 0.000		3 / 0.090					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 0.641		- / -		- / -		0 / 0.000		21 / 0.641					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		29 / 0.902		- / -		0 / 0.000		29 / 0.902					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		44 / 1.393		0 / 0.000		44 / 1.393					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		46 / 1.482		46 / 1.482					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.611		50 / 1.611					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.090		21 / 0.641		29 / 0.902		44 / 1.393		96 / 3.093		193 / 6.119					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	-	5	5	5	6	7	7	7	8	11	11	11	11	96	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	5	5	5	6	7	7	7	8	11	11	11	11	96	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 6: HUD/PDU Obsolescence																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates														Feb 2021				Feb 2022				Feb 2023				Feb 2024					
Installation Information																															
Method of Implementation: Drive in:: Installation Name: HUD/PDU Obsolescence																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.035		- / -		- / -		0 / 0.000		3 / 0.035						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		34 / 0.405		- / -		0 / 0.000		34 / 0.405						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		45 / 0.546		0 / 0.000		45 / 0.546						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.741		60 / 0.741						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		51 / 0.630		51 / 0.630						
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.035		34 / 0.405		45 / 0.546		111 / 1.371		193 / 2.357						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	-	11	11	12	-	15	15	15	111	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	11	11	12	-	15	15	15	111	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 6: Mission Display Processor																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Nov 2019				Nov 2020				Nov 2021				Nov 2022									
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023									
Installation Information																															
Method of Implementation: Contractor Depot Field Team:: Installation Name: Mission Display Processor																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.120		- / -		- / -		- / -		0 / 0.000		5 / 0.120					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		64 / 1.536		- / -		- / -		0 / 0.000		64 / 1.536					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		64 / 1.564		- / -		0 / 0.000		64 / 1.564					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 1.492		0 / 0.000		60 / 1.492					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.120		64 / 1.536		64 / 1.564		60 / 1.492		0 / 0.000		193 / 4.712					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	16	16	16	16	16	16	16	16	15	15	15	15	-	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	-	-	16	16	16	16	16	16	16	16	15	15	15	15	-	193
Footnotes: ⁽¹⁴⁾ 1.1.2) HUD Cameras: Kit procurement shifted right one year due to change in acquisition strategy, which caused delays in determining a technically acceptable solution. Kit procurement began in FY 2018. ⁽¹⁵⁾ 1.1.3) ARC - 182 Radio Obsolescence: Funding shifted left by one year to FY 2020 to meet fleet needs. Aligned with TACAN obsolescence to gain NRE and install efficiencies. ⁽¹⁶⁾ 1.1.4 TACAN Obsolescence: Procurement funding broken out from Subsystems ECP as it was identified as top degrader. Aligned with ARC-182 obsolescence to gain NRE and install efficiencies.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 3 / Avionics Obsolescence (OSIP 017-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(17) 1.1.5) HUD/PDU Obsolescence: Procurement is to address several obsolescence issues impacting fleet readiness. (18) 2.1.1) HUD Cameras: Kit procurement shifted right one year due to change in acquisition strategy, which caused delays in determining a technically acceptable solution. Kit procurement began in FY 2018. (19) 2.1.2) Subsystem ECPs cost element encompasses multiple ECPs. (20) 2.1.3) DMSMS ECPs cost element encompasses multiple ECPs. (21) 2.1.4) ARC - 182 Radio Obsolescence: Funding shifted left by one year to FY 2020 to meet fleet needs. Aligned with TACAN obsolescence to gain NRE and install efficiencies. (22) 2.1.5 TACAN Obsolescence: Procurement funding broken out from Subsystems ECP as it was identified as top degrader. Aligned with ARC-182 obsolescence to gain NRE and install efficiencies. (23) 2.1.6) HUD PDU: Procurement is to address several obsolescence issues impacting fleet readiness. (24) 2.1.8) Mission Display Processor: Kits will be procured by PMA-209. PMA-273 will pay for installations. (25) 2.2.1) Subsystem ECPs non-recurring cost element encompasses multiple ECPs. Funding in FY 2021 - 2022 provided for VMTS Software Modification. Increase in FY 2024 supports non-recurring engineering for VMTS Obsolescence, YDC Obsolescence, and RADALT Obsolescence modifications. (26) 2.2.2) DMSMS ECPs non-recurring cost element encompasses multiple ECPs. (27) 2.2.4) ARC-182 Radio Obsolescence: non-recurring cost element is a combined accelerated effort with TACAN obsolescence. (28) 2.2.5) TACAN Obsolescence: Non-recurring cost element is a combined accelerated effort with ARC-182 obsolescence.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 4 / Service Life Extension Program (SLEP) (022-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	142.431	16.160	34.805	46.126	0.000	46.126	46.637	49.604	51.622	49.186	180.738	617.309
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	142.431	16.160	34.805	46.126	0.000	46.126	46.637	49.604	51.622	49.186	180.738	617.309
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	142.431	16.160	34.805	46.126	0.000	46.126	46.637	49.604	51.622	49.186	180.738	617.309
<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: This Operational Safety and Improvement Program (OSIP) funds modifications to the T-45 training system to address correction of deficiencies discovered in Service Life Assessment Program (SLAP), which identified risk areas that must be addressed in order to extend aircraft service life. Structural SLAP was completed during 1ST quarter 2012. Service Life Extension Program (SLEP): During Full Scale Development testing of the T45 aircraft it was determined that incorporation of redesigned components applicable to the critical load paths will significantly increase the service life of the aircraft. Correcting these areas is required to achieve the safe design life associated with the program of record. Non-Recurring Engineering for SLEP modifications, which ended in FY 2017, determined changes required to improve structural details to increase aircraft service life to 21,600 flight hours at 150% Fatigue Life Expended (FLE). These SLEP modifications will enable Chief of Naval Air Training (CNATRA) pilot training requirements to be safely met until 2035. The other support in FY 2018 and beyond is to fund Government labor to perform engineering, test, logistics and financial management tasks, and to execute SLEP modifications associated with this OSIP. This support will be executed in accordance with the Federal Management Regulation and Naval Air Systems Command Policy. Development Status/Major Milestones: Retrofit kit procurements and installations for SLEP modifications continue in FY 2020. The ILS in FY 2018 and beyond is to fund the Original Equipment Manufacturer technical support of SLEP installations and onsite engineering support to adjudicate any anomalies found during SLEP retrofit in order to prevent incorporation stoppages on aircraft undergoing SLEP modifications.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 4 / Service Life Extension Program (SLEP) (022-14)					
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:							
Models of Systems Affected: T-45TS			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capabilities				Related RDT&E PEs: 0702207N						
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Service Life Extension Program (SLEP) (022-14)													
A Kits													
Recurring													
1.1.1) Structural SLEP - NonOrganic		5 / 3.291	12 / 3.382	24 / 6.813	24 / 6.936	- / -	24 / 6.936	24 / 7.061	24 / 7.188	24 / 7.317	24 / 7.449	32 / 10.110	193 / 59.547
1.1.2) SLEP Wings - NonOrganic		8 / 64.808	1 / 4.790	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 69.598
1.1.3) SLEP Canopies - Organic		12 / 6.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 6.300
1.1.4) Navy Aircrew Common Ejection Seats (NACES) - Organic		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	193 / 58.880	193 / 58.880
Subtotal: Recurring		- / 74.399	- / 8.172	- / 6.813	- / 6.936	- / -	- / 6.936	- / 7.061	- / 7.188	- / 7.317	- / 7.449	- / 68.990	- / 194.325
Non-Recurring													
1.2.1) Structural SLEP NRE - Organic		- / 28.353	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.353
1.2.2) SLEP Wings NRE - Organic		- / 14.242	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.242
1.2.3) NACES SLEP NRE - Organic ⁽²⁹⁾		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.100	- / -	- / -	- / 1.600	- / 3.700
Subtotal: Non-Recurring		- / 42.595	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.100	- / -	- / -	- / 1.600	- / 46.295
Subtotal: Service Life Extension Program (SLEP) (022-14)		25 / 116.994	13 / 8.172	24 / 6.813	24 / 6.936	- / -	24 / 6.936	24 / 7.061	24 / 9.288	24 / 7.317	24 / 7.449	225 / 70.590	407 / 240.620
Subtotal: Procurement, All Modification Items		- / 116.994	- / 8.172	- / 6.813	- / 6.936	- / -	- / 6.936	- / 7.061	- / 9.288	- / 7.317	- / 7.449	- / 70.590	- / 240.620
Support (All Modification Items)													
2.2) Data		- / -	- / -	- / 0.279	- / 0.300	- / -	- / 0.300	- / 0.324	- / 0.349	- / 0.376	- / 0.383	- / 0.896	- / 2.907
2.4) Support Equipment		- / 7.790	- / 4.324	- / 2.158	- / 2.145	- / -	- / 2.145	- / 2.184	- / 2.223	- / 5.263	- / 2.303	- / 4.691	- / 33.081
2.5) ILS ⁽³⁰⁾		- / 9.684	- / 0.635	- / 12.159	- / 12.378	- / -	- / 12.378	- / 12.601	- / 12.828	- / 13.059	- / 13.294	- / 40.599	- / 127.237
2.6) Other Support		- / 6.352	- / 3.029	- / 4.686	- / 4.771	- / -	- / 4.771	- / 4.853	- / 4.949	- / 5.027	- / 5.117	- / 15.649	- / 54.433
Subtotal: Support		- / 23.826	- / 7.988	- / 19.282	- / 19.594	- / -	- / 19.594	- / 19.962	- / 20.349	- / 23.725	- / 21.097	- / 61.835	- / 217.658
Installation													
Modification Item 1 of 1: Service Life Extension Program (SLEP) (022-14)		- / 1.611	- / 0.000	- / 8.710	- / 19.596	- / 0.000	- / 19.596	- / 19.614	- / 19.967	- / 20.580	- / 20.640	- / 48.313	- / 159.031
Subtotal: Installation		- / 1.611	- / -	- / 8.710	- / 19.596	- / -	- / 19.596	- / 19.614	- / 19.967	- / 20.580	- / 20.640	- / 48.313	- / 159.031
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series				Modification Number / Title: 4 / Service Life Extension Program (SLEP) (022-14)					
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:							
Models of Systems Affected: T-45TS				Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capabilities				Related RDT&E PEs: 0702207N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)		142.431	16.160	34.805	46.126	0.000	46.126	46.637	49.604	51.622	49.186	180.738	617.309

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 4 / Service Life Extension Program (SLEP) (022-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: Service Life Extension Program (SLEP) (022-14)												
Manufacturer Information												
Manufacturer Name: Boeing - Structural SLEP and SLEP Wing							Manufacturer Location: St. Louis					
Administrative Leadtime (<i>in Months</i>): 1							Production Leadtime (<i>in Months</i>): 9					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates	Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021	Nov 2022	Nov 2023					
Delivery Dates	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022	Sep 2023	Sep 2024					
Manufacturer Name: TBD							Manufacturer Location: TBD					
Administrative Leadtime (<i>in Months</i>): 0							Production Leadtime (<i>in Months</i>): 0					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates												
Delivery Dates												
Installation Information												
Method of Implementation: Contractor Field Mod Team:: Installation Name: SLEP Installs												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 / 1.611	- / -	5 / 2.259	2 / 0.657	0 / 0.000	2 / 0.657	1 / 0.334	1 / 0.340	2 / 0.600	- / -	0 / 0.000	13 / 5.801
FY 2018	- / -	- / -	12 / 6.451	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.300	0 / 0.000	13 / 6.751
FY 2019	- / -	- / -	- / -	24 / 18.939	0 / 0.000	24 / 18.939	- / -	- / -	- / -	- / -	0 / 0.000	24 / 18.939
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	24 / 19.280	- / -	- / -	- / -	0 / 0.000	24 / 19.280
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 19.627	- / -	- / -	0 / 0.000	24 / 19.627
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 19.980	- / -	0 / 0.000	24 / 19.980
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 20.340	0 / 0.000	24 / 20.340
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 20.706	24 / 20.706
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 27.607	32 / 27.607
Total	2 / 1.611	- / -	17 / 8.710	26 / 19.596	0 / 0.000	26 / 19.596	25 / 19.614	25 / 19.967	26 / 20.580	25 / 20.640	56 / 48.313	202 / 159.031

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Exhibit P-3a, Individual Modification: PB 2020 Navy																				Date: March 2019											
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 4 / Service Life Extension Program (SLEP) (022-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Service Life Extension Program (SLEP) (022-14)																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: SLEP Installs																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
		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	-	-	-	-	7	4	3	3	6	6	7	7	7	6	6	6	6	6	6	7	6	6	7	7	6	6	6	7	56	202
Out	2	-	-	-	-	1	7	3	3	3	6	7	7	7	6	6	6	-	6	6	7	6	6	7	7	6	6	6	7	68	202
Method of Implementation (Organic): SLEP Canopies																				Installation Quantity: 12											
Method of Implementation (Organic): Navy Aircrew Common Ejection Seats (NACES)																				Installation Quantity: 193											
Footnotes: ⁽²⁹⁾ 1.2.3 Funding shifted from FY 2021 to FY 2022 due to delay in NACES Service Life Assessment Program effort. ⁽³⁰⁾ 2.5) ILS: FY 2019 and out supports SLEP full rate retrofit and estimated number of engineering variations that will require OEM reachback and onsite engineering support. Associated growth is based on install schedule and is necessary to prevent work stoppages and delay to the mod line.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 5 / Required Avionics Sustainment Program (RASP) (006-16)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	17.152	29.869	39.516	12.128	0.000	12.128	24.038	16.774	4.725	3.044	8.330	155.576
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	17.152	29.869	39.516	12.128	0.000	12.128	24.038	16.774	4.725	3.044	8.330	155.576
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	17.152	29.869	39.516	12.128	0.000	12.128	24.038	16.774	4.725	3.044	8.330	155.576
<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: This Operational Safety and Improvement Program (OSIP) funds modifications to the T-45 training system (T-45TS) in support of the Required Avionics Sustainment Program (RASP), which includes Automatic Dependent Surveillance-Broadcast (ADS-B Out) as Phase I of this effort. The Federal Aviation Administration (FAA) has developed a plan to modernize the National Airspace System (NAS) in order to address the impact of air traffic growth in the United States. The FAA has mandated compliance with this plan by January 1, 2020. This plan, part of the FAA's Next Generation Air Transportation System (NextGen) Airspace, is intended to increase the air traffic capacity while at the same time improving safety and efficiency. In part, NextGen implements a process called Performance Based Navigation (PBN). In accordance with the concepts of PBN, an aircraft's navigation performance capability will be a determining factor as to whether or not it can fly within specific airspace, certain air traffic routes or instrument procedures. Also, NextGen transforms the NAS from a radar based system, with aircraft interrogation, to a satellite based system utilizing Automatic Dependent Surveillance-Broadcast (ADS-B) communication in order to transmit the aircraft's own position. In order for the T-45 to continue to have unrestricted access to the NAS through the year 2035, the T-45TS must be modified to avoid impacts to Chief of Naval Air Training (CNATRA) Strike Pilot and Naval Flight Officer (NFO) training. Required Avionics Sustainment Program (RASP) Phase I ADS-B Out: The first Phase of RASP will modify the T-45 with ADS-B Out capability, in compliance with FAA NAS mandate stipulated in DoT/FAA, 14 CFR Part 91: ADS-B Out Performance Requirements to Support Air Traffic Control (ATC) Service Final Rule, May 28, 2010. This modification consists of the minimum required capability increase necessary to enable ADS-B Out, equipping 193 T-45 aircraft and 18 simulators to meet FAA NAS mandates. The ADS-B Out capability requires the modification of the existing antennas and the Mission Display Processor (MDP) Operational Flight Program (OFP) software as well as changes to the simulator and any associated support equipment. It also requires integration with the replacement to the Transponder (with associated data bus connectivity and control), changes to the pilot interface and the replacement Air Data Computer. Additionally, the T-45 Navigation source (Global Positioning System (GPS)) will be updated to address obsolescence. Replacement is necessary to ensure compliance with FAA NextGen requirements. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY 2020 continues aircraft modification on the T-45TS for ADS-B Out and NextGen compliance and provides funding for integration and systems engineering in support of FAA certification.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 5 / Required Avionics Sustainment Program (RASP) (006-16)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T45TS			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capabilities					Related RDT&E PEs: 0603208N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) ADS-B Mod Kits - NonOrganic ⁽³¹⁾ <i>Installation 1 of 1</i>	3 / 0.000	84 / 1.260	84 / 1.260	- / -	- / -	- / -	22 / 0.336	- / -	- / -	- / -	- / -	193 / 2.856	
1.1.2) GBTS - Organic ^{(*) (32)}	2 / 0.046	10 / 0.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.274	
1.2.1) A kit N/R - Organic ^(*)	- / 0.549	- / 0.507	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.556	
1.2.2) GBTS A Kit N/R - Organic ^(*)	- / 4.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.423	
2.1.1) Transponder - Organic ^{(*) (33)}	- / -	84 / 12.915	84 / 13.147	- / -	- / -	- / -	9 / 2.723	- / -	- / -	- / -	- / -	177 / 28.785	
2.1.2) GPS - Organic ^{(*) (34)}	- / -	- / -	35 / 5.314	35 / 5.410	- / -	35 / 5.410	65 / 10.227	58 / 9.290	- / -	- / -	- / -	193 / 30.241	
2.1.3) Air Data Computer - Organic ^{(*) (35)}	- / -	84 / 8.479	84 / 8.632	- / -	- / -	- / -	25 / 2.662	- / -	- / -	- / -	- / -	193 / 19.773	
2.2.1) B Kit N/R - NonOrganic ^{(*) (36)}	- / 9.548	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.548	
Subtotal: Procurement	- / 14.566	- / 23.389	- / 28.853	- / 5.410	- / -	- / 5.410	- / 15.948	- / 9.290	- / -	- / -	- / 0.000	- / 97.456	
Support													
3.2) Data	- / -	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.500	
3.3) Training Equipment	- / -	- / -	- / 0.614	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.614	
3.4) Support Equipment N/R	- / -	- / -	- / 1.444	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.444	
3.5) Software ⁽³⁷⁾	- / 0.363	- / -	- / 3.752	- / 2.279	- / -	- / 2.279	- / 1.741	- / 1.444	- / 1.470	- / -	- / -	- / 11.049	
3.6) ILS	- / 1.200	- / 2.719	- / 1.553	- / 1.080	- / -	- / 1.080	- / 1.099	- / 1.119	- / 1.139	- / 1.139	- / 6.521	- / 17.569	
3.7) Other Support	- / 1.023	- / 3.761	- / 2.800	- / 2.009	- / -	- / 2.009	- / 2.043	- / 2.084	- / 2.116	- / 1.905	- / 1.809	- / 19.550	
Subtotal: Support	- / 2.586	- / 6.480	- / 10.663	- / 5.368	- / -	- / 5.368	- / 4.883	- / 4.647	- / 4.725	- / 3.044	- / 8.330	- / 50.726	
Installation													
Installation 1 of 1: ADS-B Mod Kits	- / -	- / -	- / -	- / 1.350	- / 0.000	- / 1.350	- / 3.207	- / 2.837	- / -	- / -	- / 0.000	- / 7.394	
Subtotal: Installation	- / 0.000	- / -	- / -	- / 1.350	- / -	- / 1.350	- / 3.207	- / 2.837	- / -	- / -	- / 0.000	- / 7.394	
Total													
Total Cost (Procurement + Support + Installation)	17.152	29.869	39.516	12.128	0.000	12.128	24.038	16.774	4.725	3.044	8.330	155.576	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 5 / Required Avionics Sustainment Program (RASP) (006-16)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: ADS-B Mod Kits																															
Manufacturer Information																															
Manufacturer Name: Various - ADS-B															Manufacturer Location: Various																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019				Oct 2020				Oct 2021													
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022													
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: ADS-B Mod Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.113		0 / 0.000		3 / 0.113		- / -		- / -		- / -		- / -		0 / 0.000		3 / 0.113								
FY 2018		- / -	- / -		- / -		33 / 1.237		0 / 0.000		33 / 1.237		51 / 1.947		- / -		- / -		- / -		0 / 0.000		84 / 3.184								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		33 / 1.260		51 / 1.982		- / -		- / -		0 / 0.000		84 / 3.242								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		22 / 0.855		- / -		- / -		0 / 0.000		22 / 0.855								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		36 / 1.350		0 / 0.000		36 / 1.350		84 / 3.207		73 / 2.837		- / -		- / -		0 / 0.000		193 / 7.394								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	16	17	25	26	16	17	25	26	11	11	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	-	3	-	16	17	25	26	16	17	25	26	11	11	-	-	-	-	-	-	-	-		
Footnotes:																															
⁽³¹⁾ 1.1.1) ADS-B Mod Kits: The ADS-B Modification A Kit includes Transponder, Antenna, and Air Data Computer. FY 2020 kit buy shifted to FY 2021 to align with planned contract dates.																															
⁽³²⁾ 1.1.2) GBTS: All Ground Based Training System (GBTS) kit procurement funding shifted to FY 2018 due to accelerated prime contractor schedule to meet the ADS-B (Out) 01 Jan 2020 FAA mandate.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 5 / Required Avionics Sustainment Program (RASP) (006-16)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽³³⁾ 2.1.1) Transponder: Accelerated procurement to meet the ADS-B (Out) 01 Jan 2020 FAA mandate. FY 2020 kit buy shifted to FY 2021 to align with planned contract dates. In FY 2021 the quantity procured was reduced by 16 kits. 16 kits were previously procured by PMA209 and will be provided to PMA273. Installation will be funded by PMA273. ⁽³⁴⁾ 2.1.2) GPS: Procurement shifted by one year and funding realigned from FY 2020 to FY 2022 due to contracting delays. ⁽³⁵⁾ 2.1.3) Air Data Computer: Accelerated procurement to meet the ADS-B (Out) 01 Jan 2020 FAA mandate. FY 2020 kit buy shifted to FY 2021 to align with planned contract dates. ⁽³⁶⁾ 2.2.1) B Kit N/R : Cost element reduced in FY 2018 & FY 2019 due to realized cost savings and accelerated schedule to meet 01 Jan 2020 FAA mandate. ⁽³⁷⁾ 3.5) Software increase in FY 2019 - FY 2023 to support mission computer updates for RNP/RNAV and other required subsystem ECPs.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	41.234	40.063	0.000	40.063	7.543	4.591	4.609	4.638	0.000	102.678
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	41.234	40.063	0.000	40.063	7.543	4.591	4.609	4.638	0.000	102.678
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	41.234	40.063	0.000	40.063	7.543	4.591	4.609	4.638	0.000	102.678
<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: This Operational Safety and Improvement Program (OSIP) funds modifications to the T-45 training system to address aircrew physiological episodes (PE). PEs have been increasing in number since formal reporting commenced in 2012, reaching a high of 10 events reported in a 30 day period in March 2017. All aircraft systems that contribute to aircrew life support can be causal factors in physiological events. This includes the Onboard Oxygen Generating System (OBOGS) and all associated piping, valves, and monitors, the Environmental Control System (ECS), engine bleed air delivered to the OBOGS and ECS piping, and aircrew alerting systems to warn of failures. Modifications to the aircraft will focus on addressing the highest likelihood causal factors for PEs. These include, but are not limited to, an Automatic Backup Oxygen System (ABOS), new Bleed Air Shutoff Valve (BASOV), new oxygen concentrator (GGU-25), new discrete pressure alerting, OBOGS component improvements to reduce pressure loss, ECS improvements to prevent rapid cockpit decompression, cabin altitude monitoring and alerting, and air quality monitoring and filtration. PE Mitigation efforts prior to FY 2019 were funded out of OSIP 008-95 Corrections of Deficiencies. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY 2020 and out funds provide for non-recurring engineering, kit procurement, and installation in support of T-45 physiological episode mitigation.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: T-45TS			Modification Type: PS Safety					Related RDT&E PEs: 0603208N				
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) Advanced Bleed Air Shutoff Valve - NonOrganic ⁽³⁸⁾ <i>Installation 1 of 4</i>	- / -	- / -	100 / 0.500	93 / 0.473	- / -	93 / 0.473	- / -	- / -	- / -	- / -	- / -	193 / 0.973
1.1.2) Automatic Backup Oxygen System - NonOrganic ⁽³⁹⁾ <i>Installation 2 of 4</i>	- / -	- / -	79 / 31.995	74 / 30.509	- / -	74 / 30.509	- / -	- / -	- / -	- / -	- / -	153 / 62.504
1.1.3) Discrete Pressure Caution - NonOrganic ⁽⁴⁰⁾ <i>Installation 3 of 4</i>	- / -	- / -	150 / 1.800	43 / 0.525	- / -	43 / 0.525	- / -	- / -	- / -	- / -	- / -	193 / 2.325
2.1.1) Oxygen Concentrator (Hypoxia Prevention) - NonOrganic <i>Installation 4 of 4</i>	- / -	- / -	57 / 2.626	60 / 2.814	- / -	60 / 2.814	76 / 3.629	- / -	- / -	- / -	- / -	193 / 9.069
2.1.2) Advanced Bleed Air Shutoff Valve - Organic ^(*)	- / -	- / -	100 / 1.250	93 / 1.183	- / -	93 / 1.183	- / -	- / -	- / -	- / -	- / -	193 / 2.433
2.1.3) Automatic Backup Oxygen System - Organic ^(*) ⁽⁴¹⁾	- / -	- / -	79 / 1.179	74 / 1.125	- / -	74 / 1.125	- / -	- / -	- / -	- / -	- / -	153 / 2.304
2.2.1) Install Equipment N/R - Organic ^(*) ⁽⁴²⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.000	- / 3.000	- / 3.000	- / -	- / 7.000
Subtotal: Procurement	- / 0.000	- / -	- / 39.350	- / 36.629	- / -	- / 36.629	- / 3.629	- / 1.000	- / 3.000	- / 3.000	- / 0.000	- / 86.608
Support												
3.5) Other Support	- / -	- / -	- / 1.502	- / 1.527	- / -	- / 1.527	- / 1.543	- / 1.584	- / 1.609	- / 1.638	- / -	- / 9.403
Subtotal: Support	- / 0.000	- / -	- / 1.502	- / 1.527	- / -	- / 1.527	- / 1.543	- / 1.584	- / 1.609	- / 1.638	- / 0.000	- / 9.403
Installation												
Installation 1 of 4: Advanced Bleed Air Shutoff Valve	- / -	- / -	- / 0.325	- / 0.662	- / 0.000	- / 0.662	- / 0.290	- / -	- / -	- / -	- / 0.000	- / 1.277
Installation 2 of 4: Automatic Backup Oxygen System	- / -	- / -	- / -	- / 1.000	- / 0.000	- / 1.000	- / 2.011	- / 1.917	- / -	- / -	- / 0.000	- / 4.928
Installation 3 of 4: Discrete Pressure Caution	- / -	- / -	- / 0.057	- / 0.182	- / 0.000	- / 0.182	- / -	- / -	- / -	- / -	- / 0.000	- / 0.239
Installation 4 of 4: Oxygen Concentrator (Hypoxia Prevention)	- / -	- / -	- / -	- / 0.063	- / 0.000	- / 0.063	- / 0.070	- / 0.090	- / -	- / -	- / 0.000	- / 0.223
Subtotal: Installation	- / 0.000	- / -	- / 0.382	- / 1.907	- / -	- / 1.907	- / 2.371	- / 2.007	- / -	- / -	- / 0.000	- / 6.667
Total												
Total Cost (Procurement + Support + Installation)	0.000	0.000	41.234	40.063	0.000	40.063	7.543	4.591	4.609	4.638	0.000	102.678

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 4: Advanced Bleed Air Shutoff Valve																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019																					
Delivery Dates						Apr 2019				Apr 2020																					
Installation Information																															
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: Advanced Bleed Air Shutoff Valve																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		50 / 0.325		50 / 0.331		0 / 0.000		50 / 0.331		- / -		- / -		- / -		- / -		0 / 0.000		100 / 0.656								
FY 2020		- / -	- / -		- / -		50 / 0.331		0 / 0.000		50 / 0.331		43 / 0.290		- / -		- / -		- / -		0 / 0.000		93 / 0.621								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		50 / 0.325		100 / 0.662		0 / 0.000		100 / 0.662		43 / 0.290		- / -		- / -		- / -		0 / 0.000		193 / 1.277								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	25	25	25	25	25	22	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193
Out	-	-	-	-	-	-	-	25	25	25	25	25	25	22	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																						
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)												
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																	
Installation 2 of 4: Automatic Backup Oxygen System																																
Manufacturer Information																																
Manufacturer Name: Boeing - Automatic Backup Oxygen System ⁽⁴³⁾															Manufacturer Location: St. Louis, MO																	
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 20																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Jan 2019				Jan 2020																						
Delivery Dates						Sep 2020				Sep 2021																						
Installation Information																																
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: Automatic Backup Oxygen System																																
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2019		- / -	- / -	- / -	40 / 1.000	0 / 0.000	40 / 1.000	79 / 2.011	- / -	- / -	- / -	0 / 0.000	119 / 3.011																			
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	74 / 1.917	- / -	- / -	0 / 0.000	74 / 1.917																			
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total		- / -	- / -	- / -	40 / 1.000	0 / 0.000	40 / 1.000	79 / 2.011	74 / 1.917	- / -	- / -	0 / 0.000	193 / 4.928																			
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	19	20	20	20	18	18	19	19	-	-	-	-	-	-	-	-	-	193
Out	-	-	-	-	-	-	-	-	-	-	-	-	20	20	19	20	20	20	18	18	19	19	-	-	-	-	-	-	-	-	-	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 4: Discrete Pressure Caution																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Oct 2018				Oct 2019																					
Delivery Dates						Apr 2019				Apr 2020																					
Installation Information																															
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: Discrete Pressure Caution																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		47 / 0.057		103 / 0.124		0 / 0.000		103 / 0.124		- / -		- / -		- / -		- / -		- / -		0 / 0.000		150 / 0.181					
FY 2020		- / -		- / -		- / -		43 / 0.058		0 / 0.000		43 / 0.058		- / -		- / -		- / -		- / -		- / -		0 / 0.000		43 / 0.058					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		47 / 0.057		146 / 0.182		0 / 0.000		146 / 0.182		- / -		- / -		- / -		- / -		- / -		0 / 0.000		193 / 0.239					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	23	24	51	52	21	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193
Out	-	-	-	-	-	-	-	23	24	51	52	21	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0569 / T-45 Series										Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 4: Oxygen Concentrator (Hypoxia Prevention)																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018				Dec 2019				Dec 2020																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: Oxygen Concentrator (Hypoxia Prevention)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		57 / 0.063		0 / 0.000		57 / 0.063		- / -		- / -		- / -		- / -		- / -		0 / 0.000		57 / 0.063					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.070		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.070					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		76 / 0.090		- / -		- / -		- / -		0 / 0.000		76 / 0.090					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		57 / 0.063		0 / 0.000		57 / 0.063		60 / 0.070		76 / 0.090		- / -		- / -		- / -		0 / 0.000		193 / 0.223					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	19	-	15	15	15	15	19	19	19	19	-	-	-	-	-	-	-	-	-	193
Out	-	-	-	-	-	-	-	-	-	20	18	19	-	15	15	15	15	19	19	19	19	-	-	-	-	-	-	-	-	-	193
Footnotes: ⁽³⁸⁾ 1.1.1) Advanced Bleed Air Shutoff Valve: Effort migrated from OSIP 008-95 in FY 2019. ⁽³⁹⁾ 1.1.2) Automatic Backup Oxygen System: 40 kits procured in FY 2018 in OSIP 008-95. All 193 kits will be installed in OSIP 012-19 in FY 2020.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0569 / T-45 Series	Modification Number / Title: 6 / Physiological Episode Mitigation (OSIP 012-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(40) 1.1.3) Discrete Pressure Caution: Required for the mitigation of T-45 physiological episodes. (41) 2.1.3) Automatic Backup Oxygen System: 40 kits procured in FY 2018 in OSIP 008-95. All 193 kits will be installed in OSIP 012-19 in FY 2020. (42) 2.2.1) Install Equipment N/R: Funding in FY 2022 - 2024 for non-recurring engineering in support of ECPs resulting from Physiological Mitigation (PE) root cause corrective actions. (43) 40 ABOS Kits procured under OSIP 008-95 in FY 2018 will be installed in FY 2020 under OSIP 012-19.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series						Modification Number / Title: 7 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	93.874	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	93.874
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	93.874	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	93.874
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	93.874	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	93.874
(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: Inactive OSIPs												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0569 / T-45 Series					Modification Number / Title: 7 / Inactive OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 93.874	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 93.874	
Subtotal: Procurement	- / 93.874	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 93.874	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	93.874	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	93.874	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0570 / Power Plant Changes

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
<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:

This line item funds modifications to all in-service aircraft engines. Power Plant Changes (PPC) are required throughout the service life of each aircraft to correct flight deficiencies and improve operational readiness while reducing engine operating costs. This program finances the procurement and installation of retrofit kits for all Navy and Marine Corp aircraft engines and related propulsion hardware such as propellers, starters and transmissions. The overall goal of the modifications budgeted is to continue modification efforts previously initiated on the engines for the AV-8B, F/A-18C/D & E/F, EA-18G, F-16, F-5, H-60, H-53, EA-6B, T-38, T-45, P-3, P-8A, E-2C, E-2D, C-2A, C-130, UH-1Y, AH-1Z, AH-1W, JSF, H-53 and AE1107C (V-22).

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0570 / Power Plant Changes				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Power Plant Changes (Approx. 80% Safety, 20% Reliability)				- / 631.106	- / 23.587	- / 21.521	- / 16.136	- / 0.000	- / 16.136
P-40	Total Gross/Weapon System Cost				- / 631.106	- / 23.587	- / 21.521	- / 16.136	- / 0.000	- / 16.136
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Power Plant Changes (Approx. 80% Safety, 20% Reliability)				- / 23.263	- / 24.069	- / 22.179	- / 22.704	- / 17.225	- / 801.790
P-40	Total Gross/Weapon System Cost				- / 23.263	- / 24.069	- / 22.179	- / 22.704	- / 17.225	- / 801.790
*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 2020 funding for procurement and installation of retrofit kits for all Navy and Marine Corp aircraft engines and related propulsion hardware.

The FY 2020 funding request was reduced by \$5.000 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0570 / Power Plant Changes	Modification Number / Title: 1 / Power Plant Changes

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	631.106	23.587	21.521	16.136	0.000	16.136	23.263	24.069	22.179	22.704	17.225	801.790
(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:

This program corrects aircraft flight safety deficiencies, improves operational fleet readiness, and reduces engine total cost of ownership by incorporating approved power plant changes. Power plant changes are required throughout the aircraft service life as the engine ages and operationally revealed deficiencies are discovered, researched, and solutions engineered. Propulsion and Power (P&P) Component Improvement Program (CIP), which is funded in Research Development Test & Evaluation, Navy develops and demonstrates engineering solutions to these deficiencies and through the Engineering Change Proposal (ECP) process, initiates Power Plant Change. The Power Plant Change program procures the necessary retrofit kits, support equipment, kit installation and technical data. This program provides retrofit kits for all Navy and Marine Corp aircraft engines and propulsion related hardware such as propellers, starters, generators and transmissions. Reliability Improvements are designed to increase Mean Time Between Failure and Mean Time Between Engine Removal by 30% on average and are expected to generate savings /costs avoidance in excess of \$50M annually. Aircraft engines included in Power Plant Change include: F402 Engine AV/8B, F404 Engine F/A18, F414 Engine F/A 18 E/F and EA-18G, AE1107 Engine V-22, T56 Engine P-3, C-2, E-2C/D and C130, T-64 Engine H-53, T700 Engine H-60, AH-1 and UH-1, CFM56-7B Engine P-8A, T408 Engine H-53K.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0570 / Power Plant Changes				Modification Number / Title: 1 / Power Plant Changes					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: Power Plant Changes			Modification Type: Approx. 80% Safety, 20% Reliability					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Power Plant Changes													
B Kits													
Recurring													
1.1.1) CFM 56-7B - NonOrganic ⁽¹⁾ - / 2.001 - / 1.050 - / 1.050 - / 0.549 - / - - / 0.549 - / 0.549 - / 0.560 - / 0.575 - / 0.590 - / 0.600 - / 7.524													
1.1.2) F402 AV8B - NonOrganic - / 31.207 - / 1.701 - / 1.731 - / 1.049 - / - - / 1.049 - / 1.098 - / 1.798 - / 1.827 - / 1.932 - / 2.000 - / 44.343													
1.1.3) F404 F/A 18 - NonOrganic - / 31.715 - / 2.900 - / 2.900 - / 1.606 - / - - / 1.606 - / 1.956 - / 1.956 - / 1.956 - / 2.000 - / 48.945													
1.1.4) F414 F/A 18 E/F - NonOrganic ⁽²⁾ - / 22.581 - / 5.965 - / 2.808 - / 2.244 - / - - / 2.244 - / 5.899 - / 5.794 - / 3.404 - / 3.535 - / 3.300 - / 55.530													
1.1.5) T56 P3, C2, E2, C130 - NonOrganic ⁽³⁾ - / 63.964 - / 1.899 - / 2.362 - / 1.660 - / - - / 1.660 - / 1.311 - / 1.311 - / 1.311 - / 1.311 - / 1.825 - / 76.954													
1.1.6) T64 H53 - NonOrganic - / 47.036 - / 1.059 - / 1.059 - / 0.419 - / - - / 0.419 - / 1.075 - / 1.089 - / 1.118 - / 1.169 - / 1.500 - / 55.524													
1.1.7) T700 H60, AH-1 - NonOrganic - / 50.268 - / 1.528 - / 1.554 - / 0.918 - / - - / 0.918 - / 1.575 - / 1.615 - / 1.663 - / 1.739 - / 1.750 - / 62.610													
1.1.8) AE1107C (V-22) - NonOrganic ⁽⁴⁾ - / 0.964 - / 1.097 - / 1.754 - / 1.306 - / - - / 1.306 - / 1.931 - / 1.950 - / 2.189 - / 2.263 - / 2.500 - / 15.954													
1.1.9) T408 (CH-53K) - NonOrganic ⁽⁵⁾ - / - - / - - / - - / - - - / - - / 1.484 - / 1.525 - / 1.579 - / 1.630 - / 1.750 - / 7.968													
1.1.10) Completed ECPs from prior years - NonOrganic - / 245.065 - / - - / - - / - - - / - - - / - - - / - - - / - - - / - - - / 245.065													
Subtotal: Recurring - / 494.801 - / 17.199 - / 15.218 - / 9.751 - / - - / 9.751 - / 16.878 - / 17.598 - / 15.622 - / 16.125 - / 17.225 - / 620.417													
Subtotal: Power Plant Changes - / 494.801 - / 17.199 - / 15.218 - / 9.751 - / - - / 9.751 - / 16.878 - / 17.598 - / 15.622 - / 16.125 - / 17.225 - / 620.417													
Subtotal: Procurement, All Modification Items - / 494.801 - / 17.199 - / 15.218 - / 9.751 - / - - / 9.751 - / 16.878 - / 17.598 - / 15.622 - / 16.125 - / 17.225 - / 620.417													
Support (All Modification Items)													
2.1) Data - / 1.162 - / 0.055 - / 0.056 - / 0.057 - / - - / 0.057 - / 0.057 - / 0.057 - / 0.058 - / 0.059 - / - - / 1.561													
2.2) Support equipment - / 1.260 - / 0.055 - / 0.056 - / 0.057 - / - - / 0.057 - / 0.057 - / 0.057 - / 0.058 - / 0.059 - / - - / 1.659													
2.3) ILS - / 14.747 - / 1.831 - / 1.832 - / 1.832 - / - - / 1.832 - / 1.832 - / 1.832 - / 1.840 - / 1.841 - / - - / 27.587													
2.4) Support Costs Other - / 68.077 - / 2.547 - / 2.454 - / 2.499 - / - - / 2.499 - / 2.499 - / 2.550 - / 2.600 - / 2.610 - / - - / 85.836													
Subtotal: Support - / 85.246 - / 4.488 - / 4.398 - / 4.445 - / - - / 4.445 - / 4.445 - / 4.496 - / 4.556 - / 4.569 - / 0.000 - / 116.643													
Installation													
Modification Item 1 of 1: Power Plant Changes - / 51.059 - / 1.900 - / 1.905 - / 1.940 - / 0.000 - / 1.940 - / 1.940 - / 1.975 - / 2.001 - / 2.010 - / 0.000 - / 64.730													
Subtotal: Installation - / 51.059 - / 1.900 - / 1.905 - / 1.940 - / - - / 1.940 - / 1.940 - / 1.975 - / 2.001 - / 2.010 - / 0.000 - / 64.730													
Total													
Total Cost (Procurement + Support + Installation) 631.106 23.587 21.521 16.136 0.000 16.136 23.263 24.069 22.179 22.704 17.225 801.790													

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0570 / Power Plant Changes											Modification Number / Title: 1 / Power Plant Changes										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Modification Item 1 of 1: Power Plant Changes																																
Manufacturer Information																																
Manufacturer Name: Various PPC ⁽⁶⁾													Manufacturer Location: Various																			
Administrative Leadtime <i>(in Months)</i> : 6													Production Leadtime <i>(in Months)</i> : 12																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates																																
Delivery Dates																																
Installation Information																																
Method of Implementation: See Notes:: Installation Name: Power Plant Installations																																
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																			
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 / 51.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / 51.059																			
FY 2018		- / -	0 / 1.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / 1.900																			
FY 2019		- / -	- / -	0 / 1.905	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / 1.905																			
FY 2020		- / -	- / -	- / -	0 / 1.940	0 / 0.000	0 / 1.940	- / -	- / -	- / -	- / -	0 / 0.000	- / 1.940																			
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.940	- / -	- / -	- / -	0 / 0.000	- / 1.940																			
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 1.975	- / -	- / -	0 / 0.000	- / 1.975																			
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 2.001	- / -	0 / 0.000	- / 2.001																			
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 2.010	0 / 0.000	- / 2.010																			
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total		0 / 51.059	0 / 1.900	0 / 1.905	0 / 1.940	0 / 0.000	0 / 1.940	0 / 1.940	0 / 1.975	0 / 2.001	0 / 2.010	0 / 0.000	- / 64.730																			
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	
Footnotes:																																
⁽¹⁾ Decrease from FY19/FY20 due to resuming normal production for SermeTel corrosion coating																																
⁽²⁾ Decrease between FY19/FY20 due to quantity reduction for A-18 Afterburner Spray Bar kits.																																
⁽³⁾ Decrease between FY19/FY20 due to expected quantity decrease of NP2000 Propeller Feather System Kits.																																

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0570 / Power Plant Changes	Modification Number / Title: 1 / Power Plant Changes
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽⁴⁾ An emergent requirement with Nacelle Blower Improvements Ceramic Bearing upgrade for the MV-22 and CV-22, retrofit kits were required to start in FY17 instead of FY19 to extend service life. ⁽⁵⁾ The CH-53K will IOC in Fiscal Year 2021. RDT&E CIP investments will begin in 2019 we expect that design changes will result in the requirement for retrofit kits around 2021. Based on this, CH-53K has been added to the requirements list and future requirements are reflected in the FYDP. ⁽⁶⁾ Admin and Production Leadtimes are averages with various contract and delivery dates.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: 0804745N				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: 560												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	37.148	24.907	26.470	21.824	0.000	21.824	28.367	31.242	31.422	32.163	19.909	253.452
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	37.148	24.907	26.470	21.824	0.000	21.824	28.367	31.242	31.422	32.163	19.909	253.452
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	37.148	24.907	26.470	21.824	0.000	21.824	28.367	31.242	31.422	32.163	19.909	253.452
<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: This line item funds modifications to the Joint Primary Aircraft Training System (JPATS). JPATS is a joint, United States Air Force led, acquisition program. Principal JPATS mission is primary training for entry-level student pilots, associated instructor pilots, and primary/intermediate training for United States Navy Naval Flight Officers. JPATS includes the T-6 Texan II, which is a stepped tandem seat, commercially derived aircraft powered by a single turboprop engine. The overall goal of modifications budgeted is to correct discrepancies, deficiencies and obsolescence discovered after the delivery of the aircraft and to commence upgrades to avionics systems for FAA compliance. Efforts include modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to avionics systems, may also be driven by new Cyber Security requirements. Current (FY 2019) Navy T-6 inventory is 294 aircraft (43 T-6A and 251 T-6B aircraft) with aircraft service life thru 2035. The Department of the Navy received delivery of final production Aircraft in 2016. Navy JPATS inventory includes 34 Ground Based Trainer System (GBTS) units (7 T-6A and 27 T-6B representative systems).												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy				Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft				P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)	
ID Code (A=Service Ready, B=Not Service Ready): A		Program Elements for Code B Items: 0804745N		Other Related Program Elements: N/A	
Line Item MDAP/MAIS Code: 560					

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04) (PS Safety)				- / 34.635	- / 11.898	- / 12.055	- / 4.381	- / 0.000	- / 4.381
P-3a	2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16) (Safety, Reliability, Improved Mission Capabilities)				- / 2.513	- / 13.009	- / 14.415	- / 4.063	- / 0.000	- / 4.063
P-3a	3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20) (Flight Safety)				- / 0.000	- / 0.000	- / 0.000	- / 4.178	- / 0.000	- / 4.178
P-3a	4 / AIRFRAME/PROPULSION (OSIP 008-20) (PS Safety)				- / 0.000	- / 0.000	- / 0.000	- / 7.537	- / 0.000	- / 7.537
P-3a	5 / AVIONICS (OSIP 009-20) (Safety, Reliability, Improved Mission Capabilities)				- / 0.000	- / 0.000	- / 0.000	- / 1.665	- / 0.000	- / 1.665
P-40	Total Gross/Weapon System Cost				- / 37.148	- / 24.907	- / 26.470	- / 21.824	- / 0.000	- / 21.824

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04) (PS Safety)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 62.969
P-3a	2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16) (Safety, Reliability, Improved Mission Capabilities)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 34.000
P-3a	3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20) (Flight Safety)				- / 4.183	- / 4.091	- / 4.096	- / 0.000	- / 0.000	- / 16.548
P-3a	4 / AIRFRAME/PROPULSION (OSIP 008-20) (PS Safety)				- / 10.240	- / 10.000	- / 12.752	- / 13.463	- / 12.100	- / 66.092
P-3a	5 / AVIONICS (OSIP 009-20) (Safety, Reliability, Improved Mission Capabilities)				- / 13.944	- / 17.151	- / 14.574	- / 18.700	- / 7.809	- / 73.843
P-40	Total Gross/Weapon System Cost				- / 28.367	- / 31.242	- / 31.422	- / 32.163	- / 19.909	- / 253.452

*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 2020 funding request was decreased as compared to PB19 submission due to miscellaneous adjustments. Also additional Operational Safety Improvement Programs were added to improve execution alignment into Physiological Episodes (OSIP 007-20), Avionics (008-20) and Airframe/Propulsion Obsolescence (009-20) Programs. As part of this effort to improve execution alignment, the Department of the Navy commencing in FY 2016, has assumed full spectrum acquisition efforts for certain modifications that will be specific to T-6B aircraft and corresponding cost and schedule updates have been incorporated into this submission.

Funding in FY 2020 is required for obsolescence, avionics/airframe/propulsion upgrade kits, procurement of avionics upgrade kits required for compliance with Federal Aviation Administration regulations, and to provide support for Joint Primary Aircraft Training System retrofits.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 1 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	34.635	11.898	12.055	4.381	0.000	4.381	0.000	0.000	0.000	0.000	0.000	62.969
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	34.635	11.898	12.055	4.381	0.000	4.381	0.000	0.000	0.000	0.000	0.000	62.969
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	34.635	11.898	12.055	4.381	0.000	4.381	0.000	0.000	0.000	0.000	0.000	62.969
<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: This Operational Safety Improvement Program (OSIP) funds correction of deficiencies discovered during test and evaluation or operational use to the entire airframe, its components and subassemblies, avionics, related Peculiar Support Equipment, and Ground Based Training Systems. This OSIP includes modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to avionic systems, may also be driven by new Cyber Security requirements. Correction of Deficiencies Engineering Change Proposals (ECPs) include: Airframe Structural/Sub-systems; Auto Ignition Relay; Flight Management System; Avionics Obsolescence; Onboard Oxygen Generating System; Avionics Hardware/Software Modifications; System Safety Avionics; Controlled Flight Into Terrain Prevention and Crash Survivable Cockpit Voice Recorder; and Safe Arm Handle. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Beginning in PB20 JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04) will be broken out between OSIPs Physiological Episodes (OSIP 007-20), Avionics (008-20), and Airframe/Propulsion Obsolescence to better align with program.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)						Modification Number / Title: 1 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T-6 A/B			Modification Type: PS Safety					Related RDT&E PEs: 0603208N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Archived ECPs - Organic ^(*)	- / 16.329	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.329	
1.2.1) Non-recurring Engineering - Organic ^(*)	- / 0.269	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.269	
2.1.1) Auto Ignition Relay - Organic ^(*) (1)	- / -	144 / 0.201	150 / 0.126	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	294 / 0.327	
2.1.2) Avionics Obsolescence - Organic ^(*) (2)	10 / 0.037	- / -	- / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.237	
2.1.3) Onboard Oxygen Generating System - Concentrator - Organic ^(*) (3)	- / -	98 / 3.580	116 / 2.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	214 / 5.630	
2.1.4) Safe Arm Handle - NonOrganic ⁽⁴⁾ Installation 1 of 1	2 / 1.629	27 / 2.603	50 / 2.334	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	79 / 6.566	
2.1.5) Archived ECPs - Organic ^(*)	- / 7.495	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.495	
2.2.1) Non-recurring Engineering - Organic ^(*) (5)	- / 0.300	- / 0.267	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.602	
2.2.2) OBOGS Test Stand - Organic ^(*) (6)	- / -	2 / 2.703	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.703	
Subtotal: Procurement	- / 26.059	- / 9.354	- / 5.745	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 41.158	
Support													
3.2) ILS	- / 0.761	- / 0.115	- / 0.118	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.994	
3.3) Other Support	- / 5.590	- / 2.429	- / 2.840	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.859	
3.4) Training Equipment	58 / 0.284	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	58 / 0.284	
3.5) Support Equipment	- / 0.047	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.047	
3.7) DAWDF Realignment	- / 1.894	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.894	
Subtotal: Support	- / 8.576	- / 2.544	- / 2.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 14.078	
Installation													
Installation 1 of 1: Safe Arm Handle	- / -	- / -	- / 3.352	- / 4.381	- / 0.000	- / 4.381	- / -	- / -	- / -	- / -	- / 0.000	- / 7.733	
Subtotal: Installation	- / 0.000	- / -	- / 3.352	- / 4.381	- / -	- / 4.381	- / -	- / -	- / -	- / -	- / 0.000	- / 7.733	
Total													
Total Cost (Procurement + Support + Installation)	34.635	11.898	12.055	4.381	0.000	4.381	0.000	0.000	0.000	0.000	0.000	62.969	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)										Modification Number / Title: 1 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: Safe Arm Handle																															
Manufacturer Information																															
Manufacturer Name: Textron Aviation - Defense, Inc - Safe Arm Handle															Manufacturer Location: Wichita, Kansas																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2019				Sep 2019																									
Delivery Dates		Jul 2019				Mar 2020																									
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Safe Arm Handle																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.700		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.700							
FY 2018		- / -		- / -		27 / 2.652		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		27 / 2.652							
FY 2019		- / -		- / -		- / -		50 / 4.381		0 / 0.000		50 / 4.381		- / -		- / -		- / -		- / -		0 / 0.000		50 / 4.381							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		- / -		- / -		29 / 3.352		50 / 4.381		0 / 0.000		50 / 4.381		- / -		- / -		- / -		- / -		- / -		0 / 0.000		79 / 7.733					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	29	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	29	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Footnotes: ⁽¹⁾ FY18/FY19 - Cost increased to match awarded contract amounts provided by the Joint Program Office. ⁽²⁾ 2.1.2) FY20 and beyond efforts moved to Avionics OSIP in PB20 to align with program. FY19 - increased due to Avionics Baggage Door Latches modification, safety requirement.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)	Modification Number / Title: 1 / JPATS CORRECTION OF DEFICIENCIES (OSIP 011-04)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽³⁾ 2.1.3) Onboard Oxygen Generating System (OBOGS): Quantities within fiscal years have been adjusted to improve alignment with Joint program schedules. FY18: Procured 40 -106's and 58 -106A's. FY19: Procured 116 -106A's. FY 2020 and out will be moved to OSIP 007-20. ⁽⁴⁾ 2.1.4) Safe Arm Handle - Textron Aviation - Defense, Inc. will purchase and deliver the kits. FY20 and out kits and installs will be executed out of OSIP 008-20. FY18-FY19 updated to match actuals. ⁽⁵⁾ 2.2.1) Non-recurring Engineering (NRE): FY 2020 NRE was decreased compared to PB19 submission due to realigning NRE to new OSIPs (007-20, 008-20, and 009-20) ⁽⁶⁾ 2.2.2) Onboard Oxygen Generating System (OBOGS) Test Stand will be needed to incorporate OBOGS into aircraft. Requirement moved in FY18 to meet increased production line requirement.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2.513	13.009	14.415	4.063	0.000	4.063	0.000	0.000	0.000	0.000	0.000	34.000
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2.513	13.009	14.415	4.063	0.000	4.063	0.000	0.000	0.000	0.000	0.000	34.000
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2.513	13.009	14.415	4.063	0.000	4.063	0.000	0.000	0.000	0.000	0.000	34.000
<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: This Operational Safety Improvement Program (OSIP) funds upgrades to avionic systems necessary for compliance with Federal Aviation Administration 28 May 2010 release DoT/FAA, 14 CFR Part 91: Automated Dependent Surveillance Broadcast (ADS-B) Out performance requirements to support Air Traffic Control (ATC) service final rule. This mandate stipulates that all aircraft required to have unrestricted access to operate in Classes A, B, and C airspace, certain Class E airspace, and other specified airspace requiring ADS-B Out, must be in compliance with this regulation by January 1, 2020. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: System development efforts for this update commenced in FY 2015, with hardware development costs reflected in R-1 Line #90. Non-recurring engineering and support efforts to for Engineering Change Proposal development and implementation commenced in FY 2016.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: T-6 A/B			Modification Type: Safety, Reliability, Improved Mission Capabilities				Related RDT&E PEs: 0603208N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) Aircraft Retrofit kits (T-6A) - Organic ^(*) (7)	- / -	- / -	43 / 1.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 1.059
1.1.2) GBTS Kits (T-6A) - Organic ^(*) (8)	- / -	- / -	7 / 0.071	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.071
1.1.3) Aircraft Retrofit Kits (T-6B) - NonOrganic ⁽⁹⁾ Installation 1 of 1	13 / 0.431	108 / 7.341	104 / 7.264	24 / 1.672	- / -	24 / 1.672	- / -	- / -	- / -	- / -	- / -	249 / 16.708
1.1.4) GBTS Kits (T-6B) - NonOrganic Installation 1 of 1	13 / 0.431	14 / 0.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 0.795
1.2.1) Non-Recurring Engineering - Organic ^(*) (10)	- / -	- / 0.421	- / 0.864	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.285
Subtotal: Procurement	- / 0.862	- / 8.126	- / 9.258	- / 1.672	- / -	- / 1.672	- / -	- / -	- / -	- / -	- / 0.000	- / 19.918
Support												
2.3) Support Equipment	- / -	- / 0.011	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.021
2.5) ILS	- / 0.058	- / 0.096	- / 0.113	- / 0.098	- / -	- / 0.098	- / -	- / -	- / -	- / -	- / -	- / 0.365
2.6) Other Support ⁽¹¹⁾	- / 1.583	- / 1.981	- / 2.239	- / 0.621	- / -	- / 0.621	- / -	- / -	- / -	- / -	- / -	- / 6.424
Subtotal: Support	- / 1.641	- / 2.088	- / 2.362	- / 0.719	- / -	- / 0.719	- / -	- / -	- / -	- / -	- / 0.000	- / 6.810
Installation												
Installation 1 of 1: GRP: Install Aircraft Retrofit Kits & GBTS - T-6B	- / 0.010	- / 2.795	- / 2.795	- / 1.672	- / 0.000	- / 1.672	- / -	- / -	- / -	- / -	- / 0.000	- / 7.272
Subtotal: Installation	- / 0.010	- / 2.795	- / 2.795	- / 1.672	- / -	- / 1.672	- / -	- / -	- / -	- / -	- / 0.000	- / 7.272
Total												
Total Cost (Procurement + Support + Installation)	2.513	13.009	14.415	4.063	0.000	4.063	0.000	0.000	0.000	0.000	0.000	34.000

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)										Modification Number / Title: 2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: GRP: Install Aircraft Retrofit Kits & GBTS - T-6B																															
Manufacturer Information																															
Manufacturer Name: Dyncorp International ADS-B Out ⁽¹²⁾															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 4																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018				Oct 2019																					
Delivery Dates		Jan 2018				Jan 2019				Jan 2020																					
Installation Information																															
Method of Implementation: Contractor Field Mods:: Installation Name: Install Aircraft Retrofit Kits & GBTS - T-6B																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		13 / 0.010		13 / 0.580		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		26 / 0.590					
FY 2018		- / -		95 / 2.215		27 / 0.616		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		122 / 2.831					
FY 2019		- / -		- / -		78 / 2.179		26 / 0.906		0 / 0.000		26 / 0.906		- / -		- / -		- / -		- / -		- / -		0 / 0.000		104 / 3.085					
FY 2020		- / -		- / -		- / -		24 / 0.766		0 / 0.000		24 / 0.766		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.766					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		13 / 0.010		108 / 2.795		105 / 2.795		50 / 1.672		0 / 0.000		50 / 1.672		- / -		- / -		- / -		- / -		- / -		0 / 0.000		276 / 7.272					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	-	45	31	32	27	26	26	26	26	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276
Out	13	-	45	31	32	27	26	26	26	26	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	276
Footnotes: ⁽⁷⁾ FY19 has been updated due to fact of life updates from our Joint Program office.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)	Modification Number / Title: 2 / AVIONICS UPGRADES FAA COMPLIANCE (OSIP 007-16)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽⁸⁾ 1.1.2) GBTS Kits (T-6A): Due to different unit costs for the aircraft retrofit and Ground Based Training System (GBTS) kits, a separate GBTS kit line was added to the P3A to price out costs individually. FY19 changes reflect fact of life updates from our Joint Program Office. ⁽⁹⁾ 1.1.3) Aircraft Retrofit Kits (T-6B): A total quantity of 249 retrofit kits are expected to be procured under this Operational Safety Improvement Program. Quantity of 2 test articles installed under development efforts are expected to remain on aircraft for a total of 251 T-6B aircraft. FY19 costs updated to match final awarded contract numbers. ⁽¹⁰⁾ FY19 cost increase due to additional modified Integrated Avionics Control systems. ⁽¹¹⁾ 2.6) Other Support: Automated Dependent Surveillance Broadcast Out modifications that are specific to T-6B aircraft. Support includes, contracting support and Joint Support costs to the United States Air Force. Navy also provides support to Joint program acquisition efforts for T-6A aircraft. ⁽¹²⁾ Installation T-6B: T-6B Installation schedule, grouped, to include both T-6B Retrofit and GBTS kits. Kits are being bought by Textron Aviation - Defense then Dyncorp International install kits on aircraft.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.178	0.000	4.178	4.183	4.091	4.096	0.000	0.000	16.548
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.178	0.000	4.178	4.183	4.091	4.096	0.000	0.000	16.548
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.178	0.000	4.178	4.183	4.091	4.096	0.000	0.000	16.548
<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: This Operational Safety and Improvement Program (OSIP) funds modifications to the T-6 training system to address aircrew physiological episodes (PE). PEs have been increasing in number since formal reporting commenced in 2012. All aircraft systems that contribute to aircrew life support can be causal factors in physiological events. This includes the Onboard Oxygen Generating System (OBOGS) and all associated piping, valves, and monitors, the Environmental Control System (ECS), engine bleed air delivered to the OBOGS and ECS piping, and aircrew alerting systems to warn of failures. Modifications to the aircraft will focus on addressing the highest likelihood causal factors for PEs. These include an Automatic Backup Oxygen System (ABOS) and new next generation oxygen concentrator, new discrete pressure alerting, OBOGS component improvements to reduce pressure loss, ECS improvements to prevent rapid cockpit decompression, cabin altitude monitoring and alerting, and air quality monitoring and filtration. PE Mitigation efforts prior to FY 2020 were funded out of OSIP 011-04 Corrections of Deficiencies. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: FY 2020 and out funds provide for non-recurring engineering, kit procurement, and installation in support of T-6 physiological episode mitigation.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)						Modification Number / Title: 3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: T-6A/B				Modification Type: Flight Safety				Related RDT&E PEs: 0603208N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
2.1.1) OBOGS Concentrator - Organic ⁽¹³⁾ <i>Installation 1 of 1</i>	- / -	- / -	- / -	162 / 2.920	- / -	162 / 2.920	- / -	- / -	- / -	- / -	- / -	162 / 2.920	
2.1.2) OBOGS Concentrator Next Generation - Organic ^(*) (14)	- / -	- / -	- / -	- / -	- / -	- / -	98 / 2.992	98 / 2.876	98 / 2.857	- / -	- / -	294 / 8.725	
<i>Subtotal: Procurement</i>	- / 0.000	- / -	- / -	- / 2.920	- / -	- / 2.920	- / 2.992	- / 2.876	- / 2.857	- / -	- / 0.000	- / 11.645	
Support													
3.2) ILS	- / -	- / -	- / -	- / 0.090	- / -	- / 0.090	- / 0.092	- / 0.094	- / 0.096	- / -	- / -	- / 0.372	
3.3) Other Support	- / -	- / -	- / -	- / 1.168	- / -	- / 1.168	- / 1.099	- / 1.121	- / 1.143	- / -	- / -	- / 4.531	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 1.258	- / -	- / 1.258	- / 1.191	- / 1.215	- / 1.239	- / -	- / 0.000	- / 4.903	
Installation													
<i>Installation 1 of 1:</i> OBOGS Concentrator	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / -	
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	4.178	0.000	4.178	4.183	4.091	4.096	0.000	0.000	16.548	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)										Modification Number / Title: 3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: OBOGS Concentrator																															
Manufacturer Information																															
Manufacturer Name: TBD ⁽¹⁵⁾															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 1															Production Leadtime <i>(in Months)</i> : 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Oct 2019				Oct 2020																	
Delivery Dates										Oct 2019				Oct 2020																	
Installation Information																															
Method of Implementation: CONTRACT FIELD MODIFICATION TEAM:: Installation Name: OBOGS Concentrator																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	- / -																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
Footnotes: ⁽¹³⁾ 2.1.1) Onboard Oxygen Generating System - Concentrator: Effort migrated from OSIP 011-04. Effort was executed from OSIP 011-04 in FY2018 and FY2019. 42 kits will be modified from -106s to -106A's. 120 kits will be modified -106A's. Installation will be provided by our Contractor Logistics Service provider, installation is under 50 hours so no installation funding is required.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)	Modification Number / Title: 3 / PHYSIOLOGICAL EPISODE MITIGATION (OSIP 007-20)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(14) 2.1.2) OBOGS Concentrator Next Generation - Next Generation oxygen generator development executed by Joint Program Office. Installation will be provided by our Contractor Logistics Service provider, installation is under 50 hours so no installation funding is required. (15) Previous contract award under OSIP 011-04 will reduce the time to award and produce OBOGS kits		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 4 / AIRFRAME/PROPULSION (OSIP 008-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.537	0.000	7.537	10.240	10.000	12.752	13.463	12.100	66.092
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.537	0.000	7.537	10.240	10.000	12.752	13.463	12.100	66.092
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.537	0.000	7.537	10.240	10.000	12.752	13.463	12.100	66.092
<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: This Operational Safety Improvement Program (OSIP) funds airframe and propulsion discovered during test and evaluation or operational use to the entire airframe, its components and subassemblies, related Peculiar Support Equipment, and Ground Based Training Systems. This OSIP includes modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to the airframe, may also be driven by propulsion requirements Airframe/Propulsion Engineering Change Proposals (ECPs) include: Airframe Structural/Sub-systems modifications; Auto Ignition Relay; Landing Gear Control Handle redesign; and future propulsion modifications. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Continued service life extension of aircraft by continuing incorporation of Engineering Change Proposals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)				Modification Number / Title: 4 / AIRFRAME/PROPULSION (OSIP 008-20)					
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: T-6 A/B				Modification Type: PS Safety				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Canopy Fracturing Initiation System (CFIS) - Ballistic - Organic ^(*) (16)	- / -	- / -	- / -	- / -	- / -	- / -	115 / 0.050	- / -	- / -	- / -	- / -	115 / 0.050	
2.1.1) Airframe Structural/Sub-systems - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	115 / 1.890	145 / 2.431	34 / 0.581	- / -	294 / 4.902	
2.1.2) Safe Arm Handle Retrofit - NonOrganic ⁽¹⁷⁾ Installation 1 of 1	- / -	- / -	- / -	125 / 5.756	- / -	125 / 5.756	124 / 5.904	- / -	- / -	- / -	- / -	249 / 11.660	
2.1.3) Braking System Deficiency - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	67 / 3.970	93 / 5.603	134 / 7.805	- / -	294 / 17.378	
2.2.1) Non-Recurring Engineering - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.939	- / 2.030	- / 2.998	- / 3.317	- / 6.500	- / 15.784	
Subtotal: Procurement	- / 0.000	- / -	- / -	- / 5.756	- / -	- / 5.756	- / 6.893	- / 7.890	- / 11.032	- / 11.703	- / 6.500	- / 49.774	
Support													
3.2) ILS	- / -	- / -	- / -	- / 0.090	- / -	- / 0.090	- / 0.100	- / 0.115	- / 0.120	- / 0.125	- / 1.100	- / 1.650	
3.3) Other Support	- / -	- / -	- / -	- / 1.691	- / -	- / 1.691	- / 1.757	- / 1.545	- / 1.600	- / 1.635	- / 4.500	- / 12.728	
Subtotal: Support	- / 0.000	- / -	- / -	- / 1.781	- / -	- / 1.781	- / 1.857	- / 1.660	- / 1.720	- / 1.760	- / 5.600	- / 14.378	
Installation													
Installation 1 of 1: Safe Arm Handle Retrofit	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.490	- / 0.450	- / -	- / -	- / 0.000	- / 1.940	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1.490	- / 0.450	- / -	- / -	- / 0.000	- / 1.940	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	7.537	0.000	7.537	10.240	10.000	12.752	13.463	12.100	66.092	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)										Modification Number / Title: 4 / AIRFRAME/PROPULSION (OSIP 008-20)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: Safe Arm Handle Retrofit																															
Manufacturer Information																															
Manufacturer Name: Textron Aviation - Defense, Inc - Safe Arm Handle															Manufacturer Location: Wichita, Kansas																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Sep 2020				Sep 2021																	
Delivery Dates										Sep 2021				Sep 2022																	
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Safe Arm Handle Retrofit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		125 / 1.490		- / -		- / -		- / -		0 / 0.000		125 / 1.490					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		124 / 0.450		- / -		- / -		0 / 0.000		124 / 0.450					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		125 / 1.490		124 / 0.450		- / -		- / -		0 / 0.000		249 / 1.940					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	-	-	-	124	-	-	-	-	-	-	-	-	-	249
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	-	-	-	124	-	-	-	-	-	-	-	-	-	249
Footnotes: ⁽¹⁶⁾ 1.1.1) Canopy Fracturing Initiation System (CFIS) - Ballistic previously procured and installed under OSIP 011-04. Due to aircraft availability remaining retrofit kits will not be procured to FY2021. ⁽¹⁷⁾ 2.1.2) Safe Arm Handle Retrofit - Previously executed out of OSIP 011-04.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)					Modification Number / Title: 5 / AVIONICS (OSIP 009-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	1.665	0.000	1.665	13.944	17.151	14.574	18.700	7.809	73.843
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	1.665	0.000	1.665	13.944	17.151	14.574	18.700	7.809	73.843
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	1.665	0.000	1.665	13.944	17.151	14.574	18.700	7.809	73.843
<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: This Operational Safety Improvement Program (OSIP) funds avionics upgrades discovered during test and evaluation or operational use to the entire avionics, its components and subassemblies, related Peculiar Support Equipment, and Ground Based Training Systems. This OSIP includes modifications to address safety, reliability, maintainability, obsolescence, and Diminishing Manufacturing Source (DMSMS) requirements. Modifications, particularly to avionic systems, may also be driven by new Cyber Security requirements. Avionics Engineering Change Proposals (ECPs) include: Auto Ignition Relay; Avionics Hardware/Software Modifications; System Safety Avionics; Controlled Flight Into Terrain Prevention and Crash Survivable Cockpit Voice Recorder. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Continued avionics extension by continuing incorporation of Engineering Change Proposals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)						Modification Number / Title: 5 / AVIONICS (OSIP 009-20)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: T-6 A/B				Modification Type: Safety, Reliability, Improved Mission Capabilities				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
2.1.2) Controlled Flight Into Terrain Avoidance - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	99 / 4.054	87 / 3.654	66 / 2.869	42 / 1.434	- / -	294 / 12.011	
2.1.3) Crash Survivable Cockpit Recorder - NonOrganic ⁽¹⁸⁾ <i>Installation 1 of 1</i>	- / -	- / -	- / -	- / -	- / -	- / -	99 / 5.940	87 / 4.206	66 / 2.904	42 / 1.472	- / -	294 / 14.522	
2.1.4) Safety System Compliance Retrofit - Organic ^(*) ⁽¹⁹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 1.264	102 / 2.434	72 / 1.753	66 / 1.675	294 / 7.126	
2.1.5) Safety System Compliance GBTS - Organic ^(*) ⁽²⁰⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.304	14 / 0.334	7 / 0.170	- / -	34 / 0.808	
2.1.6) Avionics Obsolescence - Organic ^(*) ⁽²¹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	91 / 1.348	90 / 1.360	79 / 1.217	34 / 0.534	294 / 4.459	
2.2.1) Non-recurring Engineering - Organic ^(*)	- / -	- / -	- / -	- / 0.407	- / -	- / 0.407	- / 0.476	- / 1.954	- / 0.996	- / 7.922	- / -	- / 11.755	
Subtotal: Procurement	- / 0.000	- / -	- / -	- / 0.407	- / -	- / 0.407	- / 10.470	- / 12.730	- / 10.897	- / 13.968	- / 2.209	- / 50.681	
Support													
3.2) ILS	- / -	- / -	- / -	- / 0.090	- / -	- / 0.090	- / 0.100	- / 0.105	- / 0.110	- / 0.115	- / 1.100	- / 1.620	
3.3) Other Support	- / -	- / -	- / -	- / 1.168	- / -	- / 1.168	- / 1.434	- / 1.225	- / 1.250	- / 2.700	- / 4.500	- / 12.277	
Subtotal: Support	- / 0.000	- / -	- / -	- / 1.258	- / -	- / 1.258	- / 1.534	- / 1.330	- / 1.360	- / 2.815	- / 5.600	- / 13.897	
Installation													
Installation 1 of 1: Crash Survivable Cockpit Recorder	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.940	- / 3.091	- / 2.317	- / 1.917	- / 0.000	- / 9.265	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 1.940	- / 3.091	- / 2.317	- / 1.917	- / 0.000	- / 9.265	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	1.665	0.000	1.665	13.944	17.151	14.574	18.700	7.809	73.843	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)										Modification Number / Title: 5 / AVIONICS (OSIP 009-20)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: Crash Survivable Cockpit Recorder																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 4																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates														Apr 2021				Apr 2022				Apr 2023				Apr 2024					
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Crash Survivable Cockpit Recorder																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		54 / 1.940		45 / 1.151		- / -		- / -		0 / 0.000		99 / 3.091					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		45 / 1.940		42 / 1.158		- / -		0 / 0.000		87 / 3.098					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		39 / 1.159		27 / 0.958		0 / 0.000		66 / 2.117					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		42 / 0.959		0 / 0.000		42 / 0.959					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		54 / 1.940		90 / 3.091		81 / 2.317		69 / 1.917		0 / 0.000		294 / 9.265					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	27	22	23	23	22	22	20	20	19	19	8	21	21	-	294
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	27	22	23	23	22	22	20	20	19	19	8	21	21	-	294
Footnotes:																															
⁽¹⁸⁾ 2.1.3) Crash Survivable Cockpit Recorder (CSR) kit cost changes are due to quantity buy changes with the USAF and USA.																															
⁽¹⁹⁾ 2.1.4) Safety System Compliance Retrofit - Quantity includes all T-6A and T-6B. Office of the Chief of Naval Operations (OPNAV) and USAF Joint Program office mandate incorporation of Safety of Flight issues.																															
⁽²⁰⁾ 2.1.5) Safety System Compliance GBTS - Quantity Includes GBTS for T-6A and T-6B																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0571 / JT Primary Acft Trnr Sys (JPATS)	Modification Number / Title: 5 / AVIONICS (OSIP 009-20)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(21) 2.1.8) Avionics Obsolescence: Modifications to the avionics will be required to upgrade the electronic flight instrument displays, Altitude and Heading Reference (AHRS) controller, Midair Collision Avoidance, Military Flight Operations Quality Assurance (MFOQA) and backup flight instruments and those avionic components associated with the affected aircraft systems to include associated software updates. Previously budgeted under OSIP 011-04, starting in PB20 effort is moved to Avionics OSIP 009-20 to better align with program.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	20.368	0.000	15.864	39.762	0.000	39.762	35.397	2.666	5.885	6.034	65.386	191.362
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	20.368	0.000	15.864	39.762	0.000	39.762	35.397	2.666	5.885	6.034	65.386	191.362
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	20.368	0.000	15.864	39.762	0.000	39.762	35.397	2.666	5.885	6.034	65.386	191.362
<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:

This budget line item supports Physiological Episodes (PE) starting in FY 2019. PE is a continuation of efforts previously funded in BLI 0525 F/A-18 Series and BLI 0569 T-45 Series. Oxygen System Upgrades incorporates Aircrew Oxygen System related modifications to all USN/USMC fixed wing aircraft. Oxygen systems include On-Board Oxygen Generation System (OBOGS), On-Board Inert Gas Generation System (OBIGS), regulators and Oxygen Storage Bottles.

This line item funds Aircraft Integration Modifications for the Enhanced Visual Acuity (EVA) program for all USN/USMC Rotary Wing and Tilt Rotor Aircraft and Aircrew Oxygen System related modifications for Physiological Episode (PE) program for fixed wing aircraft. This line item will also be utilized for future Aviation Life Support Modifications as required.

Current aviation life support equipment (ALSE) flight vests worn by HMLA aircrew have excessive bulk which can impede the performance of precision mission tasks. HQMC Aviation has a requirement for a modular aviator body armor vest (ABAV) system capable of being configured for specific airframes (UH-1Y, AH-1Z) that operate over land and water.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / 003-19 Physiological Episodes (Performance Enhancement)				- / 0.000	- / 0.000	- / 15.864	- / 37.562	- / 0.000	- / 37.562
P-3a	2 / 004-21 Enhanced Visual Acuity Mods (Performance Enhancement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	3 / H-1 Vest 019-20 (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 2.200	- / 0.000	- / 2.200
P-3a	4 / Inactive OSIPs (TBD)				- / 20.368	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 20.368	- / 0.000	- / 15.864	- / 39.762	- / 0.000	- / 39.762
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / 003-19 Physiological Episodes (Performance Enhancement)				- / 35.397	- / 2.666	- / 2.854	- / 0.000	- / 0.000	- / 94.343
P-3a	2 / 004-21 Enhanced Visual Acuity Mods (Performance Enhancement)				- / 0.000	- / 0.000	- / 3.031	- / 6.034	- / 65.386	- / 74.451
P-3a	3 / H-1 Vest 019-20 (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 2.200
P-3a	4 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 20.368
P-40	Total Gross/Weapon System Cost				- / 35.397	- / 2.666	- / 5.885	- / 6.034	- / 65.386	- / 191.362
*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 2020 funds are requested to incorporate modifications which address the alarming increase in Physiological Episodes (hypoxia and decompression sickness events) and aviation life support equipment flight vest.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods	Modification Number / Title: 1 / 003-19 Physiological Episodes

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	0.000	15.864	37.562	0.000	37.562	35.397	2.666	2.854	0.000	0.000	94.343
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	15.864	37.562	0.000	37.562	35.397	2.666	2.854	0.000	0.000	94.343
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	15.864	37.562	0.000	37.562	35.397	2.666	2.854	0.000	0.000	94.343
(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:

Oxygen System Upgrades incorporates Aircrew Oxygen System related modifications to all USN/USMC fixed wing aircraft. Oxygen systems include On-Board Oxygen Generation System (OBOGS), On-Board Inert Gas Generation System (OBIGS), regulators and Oxygen Storage Bottles.

Current modifications address the alarming increase in Physiological Episodes (hypoxia and decompression sickness events). This is the #1 Commander, Naval Air Force (CNAF) priority and Chief of Naval Air Training (CNATRA) Safety Issue. OBOGS hardware improvements have been qualified to address aging system deficiencies and are being fielded.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods						Modification Number / Title: 1 / 003-19 Physiological Episodes			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: T-45 C, F/A-18 A, F/A-18 B, F/A-18 C, F/A-18 D, F/A-18 E/F, E/A-18 G, T-6 B				Modification Type: Performance Enhancement				Related RDT&E PEs: 0604264N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: 003-19 Physiological Episodes													
B Kits													
Recurring													
2.1.1) NACES F/A-18 (B Kits) - Organic	- / -	- / -	322 / 14.390	591 / 26.939	- / -	591 / 26.939	514 / 23.897	18 / 0.862	- / -	- / -	- / -	1,445 / 66.088	
2.1.2) NACES T-45 (B Kits) - Organic	- / -	- / -	- / -	188 / 8.742	- / -	188 / 8.742	206 / 9.771	- / -	- / -	- / -	- / -	394 / 18.513	
Subtotal: Recurring	- / 0.000	- / -	- / 14.390	- / 35.681	- / -	- / 35.681	- / 33.668	- / 0.862	- / -	- / -	- / 0.000	- / 84.601	
Subtotal: 003-19 Physiological Episodes	- / -	- / -	322 / 14.390	779 / 35.681	- / -	779 / 35.681	720 / 33.668	18 / 0.862	- / -	- / -	- / -	1,839 / 84.601	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / 14.390	- / 35.681	- / -	- / 35.681	- / 33.668	- / 0.862	- / -	- / -	- / 0.000	- / 84.601	
Support (All Modification Items)													
3.5) ILS ⁽¹⁾	- / -	- / -	- / 1.118	- / 1.396	- / -	- / 1.396	- / 1.289	- / 1.386	- / 2.320	- / -	- / -	- / 7.509	
3.6) Other Support ⁽²⁾	- / -	- / -	- / 0.356	- / 0.485	- / -	- / 0.485	- / 0.440	- / 0.418	- / 0.534	- / -	- / -	- / 2.233	
Subtotal: Support	- / 0.000	- / -	- / 1.474	- / 1.881	- / -	- / 1.881	- / 1.729	- / 1.804	- / 2.854	- / -	- / 0.000	- / 9.742	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	15.864	37.562	0.000	37.562	35.397	2.666	2.854	0.000	0.000	94.343	

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Exhibit P-3a, Individual Modification: PB 2020 Navy				Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1		P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods			Modification Number / Title: 1 / 003-19 Physiological Episodes		
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: 003-19 Physiological Episodes							
Manufacturer Information							
Manufacturer Name: TBD Physiological Episodes				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 6			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates		Jan 2019	Jan 2020	Jan 2021			
Delivery Dates		Jun 2019	Jun 2020	Jun 2021			

Footnotes:

(1) Increase in FY19 to FY20 due to both T-45 and F-18 ramping up production.

(2) Increase in FY19 to FY20 due to both T-45 and F-18 ramping up production.

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods				Modification Number / Title: 2 / 004-21 Enhanced Visual Acuity Mods			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	0.000	0.000	3.031	6.034	65.386	74.451
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	3.031	6.034	65.386	74.451
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	0.000	0.000	3.031	6.034	65.386	74.451
<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:

Enhanced Visual Acuity (EVA) is a digital replacement for the AN/AVS-9 Aviator Night Vision goggles for all USN/USMC Rotary Wing and Tilt Rotor Aircraft. The system will provide increased resolution under reduced light levels and serve as the display for aircraft Heads Up Display (HUD) systems. APN-5 funding will be utilized for aircraft modifications required to provide electrical power and HUD symbology for the EVA system.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods					Modification Number / Title: 2 / 004-21 Enhanced Visual Acuity Mods			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: AH-1Z, CH-53E/K, MH-53E, MH-60R, MH-60S, MV-22B, UH-1Y				Modification Type: Performance Enhancement				Related RDT&E PEs: 0604264N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> 004-21 Enhanced Visual Acuity Mods													
A Kits													
Recurring													
1.1.1) MH-60S Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	220 / 4.198	220 / 4.198	
1.1.2) AH-1Z Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.242	20 / 1.664	183 / 12.299	206 / 14.205	
1.1.3) CH-53E/K Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	200 / 1.648	200 / 1.648	
1.1.4) MH-53E Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 0.501	27 / 0.501	
1.1.5) MH-60R Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	235 / 4.357	235 / 4.357	
1.1.6) MV-22B Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	380 / 3.131	380 / 3.131	
1.1.7) UH-1Y Install (A-Kits) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.244	20 / 1.664	134 / 11.842	157 / 13.750	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.486	- / 3.328	- / 37.976	- / 41.790	
Non-Recurring													
1.2.1) Integration NRE - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.915	- / 1.953	- / 18.512	- / 22.380	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.915	- / 1.953	- / 18.512	- / 22.380	
<i>Subtotal: 004-21 Enhanced Visual Acuity Mods</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.401	40 / 5.281	1,379 / 56.488	1,425 / 64.170	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.401	- / 5.281	- / 56.488	- / 64.170	
Support (All Modification Items)													
3.2) Data	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.006	- / 0.006	- / 0.032	- / 0.044	
3.3) Training Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.111	- / 0.111	
3.6) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.504	- / 0.508	- / 1.713	- / 2.725	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.510	- / 0.514	- / 1.856	- / 2.880	
Installation													
<i>Modification Item 1 of 1:</i> 004-21 Enhanced Visual Acuity Mods	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.120	- / 0.239	- / 7.042	- / 7.401	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	- / 0.239	- / 7.042	- / 7.401	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.031	6.034	65.386	74.451	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods										Modification Number / Title: 2 / 004-21 Enhanced Visual Acuity Mods											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: 004-21 Enhanced Visual Acuity Mods																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jan 2022				Jan 2023				Jan 2024									
Delivery Dates														Jun 2022				Jun 2023				Jun 2024									
Installation Information																															
Method of Implementation: Contractor Field Team:: Installation Name: Enhanced Visual Acuity																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.120		3 / 0.120		0 / 0.120		6 / 0.360						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.119		20 / 0.800		40 / 0.919						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1,379 / 6.122		1,379 / 6.122						
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.120		23 / 0.239		1,399 / 7.042		1,425 / 7.401						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	2	1	10	10	1,399	1,425
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	11	10	1,399	1,425

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods	Modification Number / Title: 3 / H-1 Vest 019-20

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	2.200	0.000	2.200	0.000	0.000	0.000	0.000	0.000	2.200
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	2.200	0.000	2.200	0.000	0.000	0.000	0.000	0.000	2.200
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	2.200	0.000	2.200	0.000	0.000	0.000	0.000	0.000	2.200
<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:

Current aviation life support equipment (ALSE) flight vests worn by HMLA aircrew have excessive bulk which can impede the performance of precision mission tasks. HQMC Aviation has a requirement for a modular aviator body armor vest (ABAV) system capable of being configured for specific airframes (UH-1Y, AH-1Z) that operate over land and water. The areas of improvement are intended to produce a modular equipment system that focuses on mission tailoring, enhanced survivability, and enhanced mobility while reducing weight, bulk, and heat stress.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods					Modification Number / Title: 3 / H-1 Vest 019-20			
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1:</i> H-1 Vest 019-20													
A Kits													
Non-Recurring													
1.2.1) H-1 Vest - Organic	- / -	- / -	- / -	1,000 / 2.200	- / -	1,000 / 2.200	- / -	- / -	- / -	- / -	- / -	1,000 / 2.200	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / 2.200	- / -	- / 2.200	- / -	- / -	- / -	- / -	- / 0.000	- / 2.200	
<i>Subtotal: H-1 Vest 019-20</i>	- / -	- / -	- / -	1,000 / 2.200	- / -	1,000 / 2.200	- / -	- / -	- / -	- / -	- / -	1,000 / 2.200	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.200	- / -	- / 2.200	- / -	- / -	- / -	- / -	- / 0.000	- / 2.200	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	2.200	0.000	2.200	0.000	0.000	0.000	0.000	0.000	2.200	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods	Modification Number / Title: 3 / H-1 Vest 019-20
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: H-1 Vest 019-20		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods	Modification Number / Title: 4 / Inactive OSIPs

[illegible]**Description:**

Inactive OSIPs prior year totals.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0575 / Aviation Life Support Mods					Modification Number / Title: 4 / Inactive OSIPs			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIPs - Organic ^(*)	- / 20.368	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.368	
<i>Subtotal: Procurement</i>	- / 20.368	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 20.368	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	20.368	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.368	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0576 / Common ECM 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: 000												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,433.958	226.998	195.038	162.839	3.406	166.245	145.676	159.586	160.485	164.271	1,130.524	4,782.781
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,433.958	226.998	195.038	162.839	3.406	166.245	145.676	159.586	160.485	164.271	1,130.524	4,782.781
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,433.958	226.998	195.038	162.839	3.406	166.245	145.676	159.586	160.485	164.271	1,130.524	4,782.781
<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:

This line item funds Common Electronic Countermeasures (ECM) equipment for strike and assault aircraft. The overall goal of the modification budget is to provide a reprogrammable radar and missile warning system, provide attacking missile declaration, sector direction finding, laser detection, and self-protection capability devices to applicable user aircraft. It will also provide for the integration of hardware/software solutions that link on-board integrated Aircraft Survivability Equipment (iASE) that are compatible with mission planning information.

Operational Safety Improvements Program (OSIP) 014-90 AN/APR-39(V)2 Radar Warning Receiver (RWR): The AN/APR-39A/B/C/D (V) 2 Radar Signal Detecting Set is designed for United States Marine Corps (USMC), United States Navy (USN), United States Air Force (USAF), and United States Army (US Army) Assault Support aircraft to provide onboard situational awareness and warning of radar threats. NRE, integration, validation/ verification and procurement of the upgraded APR-39 system (APR-39D (V)2) will continue through FY 2031.

OSIP 006-00 ALE-39 to ALE-47 Retrofit: This OSIP provides funding for retrofit installation of AN/ALE-47 on F/A-18/C/D aircraft lots 12-17 and to procure new AN/ALE-47 Test Sets (ALM-290) to replace original version ALM-286s. The replacement of the AN/ALE-39 Dispenser system with the AN/ALE-47 will correct serious safety problems and greatly improve aircraft survivability.

OSIP 005-08 Direct Infrared Countermeasure (DIRCM) / Department of Navy Large Aircraft Infrared Countermeasure (DoN LAIRCM) AN/AAQ-24: This OSIP provides current available technology improvements for survivability to United States Marine Corps aircraft. This budget supports procurement, Engineering Change Proposals (ECPs), integration, validation, Follow-on Test and Evaluation (FOT&E) and fielding of DoN LAIRCM systems on CH-53E/K, KC-130J, P-8A and MV-22 platforms.

OSIP 004-12 Common On-Board Jammer: Integrated Defensive Electronic Counter Measure (IDECM) Block 4 is an ECP to the ALQ-214 intended to render it suitable for operation on the F/A-18C/D aircraft, while retaining all IDECM suite functionality when installed on F/A-18E/F aircraft. The Electronic Frequency Converter (EFC) enables dataflow via the fiber optic cable to the Fiber Optic Towed Decoy (FOTD) and is part of the IB-4 configuration when installed on the F/A-18E/F aircraft. This OSIP is for the onboard portion of the IB-4 configuration.

OSIP 017-12 Correction of Discrepancies: This OSIP will provide the required correction to multiple sub-components that are obsolete.

OSIP 004-15 Assault Correction of Discrepancies: Assault of Corrections of Discrepancies OSIP will affect changes to assault Electronic Countermeasure (ECM) equipment in the aircraft that have been delivered for fleet operations. These ECM systems require various upgrade initiatives to keep these aircraft mission capable with a robust defensive system that ensure aircraft survivability.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0576 / Common ECM 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: 000		
OSIP 018-17 Assault Direct Infrared Countermeasures (ADIRCM): This OSIP provides funding for the installation of Assault Direct Infrared Countermeasures on the United States Navy/United States Marine Corps chosen material solution for AH-1Z, UH-1Y, and MH-60S aircraft initiated as a response to Joint Urgent Operational Needs Statement (SO-0010).		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0576 / Common ECM 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: 000									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / AN/APR-39 RWR (OSIP 014-90) (MISSION CAPABILITY)				- / 376.866	- / 36.981	- / 38.299	- / 53.390	- / 0.000	- / 53.390
P-3a	2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00) (MISSION CAPABILITY)				- / 189.233	- / 13.706	- / 4.403	- / 2.820	- / 0.000	- / 2.820
P-3a	3 / DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM / AAQ-24 (OSIP 005-08) (MISSION CAPABILITY)				- / 671.514	- / 89.763	- / 74.708	- / 61.957	- / 3.406	- / 65.363
P-3a	4 / COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12) (MISSION CAPABILITY)				- / 427.339	- / 44.826	- / 66.854	- / 44.672	- / 0.000	- / 44.672
P-3a	5 / ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15) (SAFETY/RELIABILITY)				- / 2.342	- / 0.752	- / 0.954	- / 0.000	- / 0.000	- / 0.000
P-3a	6 / ASSAULT DIRCM (OSIP 018-17) (TBD)				- / 27.460	- / 40.970	- / 9.820	- / 0.000	- / 0.000	- / 0.000
P-3a	7 / INACTIVE OSIPs (TBD)				- / 739.204	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 2,433.958	- / 226.998	- / 195.038	- / 162.839	- / 3.406	- / 166.245

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / AN/APR-39 RWR (OSIP 014-90) (MISSION CAPABILITY)				- / 32.998	- / 35.433	- / 35.438	- / 36.111	- / 662.644	- / 1,308.160
P-3a	2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00) (MISSION CAPABILITY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 7.587	- / 217.749
P-3a	3 / DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM / AAQ-24 (OSIP 005-08) (MISSION CAPABILITY)				- / 69.331	- / 74.403	- / 74.479	- / 75.899	- / 428.610	- / 1,624.070
P-3a	4 / COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12) (MISSION CAPABILITY)				- / 43.347	- / 49.750	- / 50.568	- / 52.261	- / 31.683	- / 811.300
P-3a	5 / ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15) (SAFETY/RELIABILITY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 4.048
P-3a	6 / ASSAULT DIRCM (OSIP 018-17) (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 78.250
P-3a	7 / INACTIVE OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 739.204
P-40	Total Gross/Weapon System Cost				- / 145.676	- / 159.586	- / 160.485	- / 164.271	- / 1,130.524	- / 4,782.781

*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:
FY20 Baseline funding is required for Common Electronic Countermeasures (ECM) equipment for strike and assault aircraft.

OCO:
FY20 OCO funding provided to procure 1 DIRCM "B" Kit for MV-22 and other support.

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment				Modification Number / Title: 1 / AN/APR-39 RWR (OSIP 014-90)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	376.866	36.981	38.299	53.390	0.000	53.390	32.998	35.433	35.438	36.111	662.644	1,308.160
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	376.866	36.981	38.299	53.390	0.000	53.390	32.998	35.433	35.438	36.111	662.644	1,308.160
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	376.866	36.981	38.299	53.390	0.000	53.390	32.998	35.433	35.438	36.111	662.644	1,308.160
(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:

DESCRIPTION / JUSTIFICATION: The AN/APR-39 family of systems Radar Signal Detecting Set is designed for United States Marine Corps (USMC), United States Navy (USN), United States Air Force (USAF) and United States Army (US Army) Assault Support aircraft to provide onboard situational awareness and warning of radar threats by Statement of Operational Requirements Document (ORD) number 545-88-00 dated 14 February 2000. The AN/APR-39 family of systems provides control and display of the AN/AAQ-24, AN/AAQ-45, AN/AAR-47, AN/AAR-59 and AN/AAR-61 Missile Warning Systems (MWS) and Chaff dispense commands to the AN/ALE-47 Counter Measure Dispensing System (CMDS). The AN/APR-39 consists of five antennas, one Cockpit Control unit, one Processor, a display, and two, three, or four receivers (dependent on a/c configuration). This OSIP supports: Engineering Change Proposals (ECPs); software upgrades; Modernized Radar Warning Receiver (MRWR) Capabilities Development Document (CDD) and Radar Frequency Countermeasures (RFCM) upgrades and interface/integrations to include Integrated Aircraft Survivability Equipment (iASE). This program develops integrated hardware/software solutions that link Onboard iASE that are compatible with mission planning information. This program has the capability to store sensor data for post mission threat analysis. Updates required through the Future Year Defense Program (FYDP) for various platforms. The AN/APR-39D(V)2 corrects deficiencies documented in the AN/APR-39 A/B/C variants by providing correct direction of arrival (DOA) information, resolving time delayed detection and identification of threat emitters improving situational awareness to combat aircrews. The AN/APR-39 family of systems are installed on the following USMC and USN assault support aircraft: V-22, H-1, H-60, H-53 and C-130.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The APR-39 is in the production and sustainment phase (MSIII3Q/96). The Department of Navy is the lead service of this joint service program. Non-Recurring Engineering (NRE), integration, validation/verification and procurement of the upgraded APR-39 system (APR-39D(V)2) will continue through FY 2031.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 1 / AN/APR-39 RWR (OSIP 014-90)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: UH-1Y, AH-1Z, MV-22, KC-130T, CH-53E/K, KC-130J, MH-53, HH-60H, MH-60S					Modification Type: MISSION CAPABILITY				Related RDT&E PEs:				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: AN/APR-39 RWR (OSIP 014-90)													
B Kits													
Recurring													
1.1.1) Install Equip AN/APR-39A/C/D(V)2- MV-22 - Organic ⁽¹⁾	19 / 13.918	18 / 15.958	19 / 16.616	22 / 21.951	- / -	22 / 21.951	11 / 13.403	12 / 14.340	12 / 14.627	12 / 14.919	205 / 266.500	330 / 392.232	
1.1.2) Install Equip AN/APR-39 D(V)2-H-1 - Organic ⁽²⁾	3 / 1.790	11 / 8.336	16 / 12.115	23 / 19.566	- / -	23 / 19.566	11 / 11.640	13 / 13.428	13 / 13.697	13 / 13.971	181 / 199.100	284 / 293.643	
1.1.3) Install Equip AN/APR-39 D(V)2 - CH-53E - Organic	- / -	- / -	- / -	3 / 2.829	- / -	3 / 2.829	- / -	- / -	- / -	- / -	80 / 96.800	83 / 99.629	
1.1.4) Install Equipment Conversion B Kits - Organic	12 / 0.866	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.866	
1.1.5) Archived BKits Recurring - Organic - Organic	- / 159.624	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 159.624	
Subtotal: Recurring	- / 176.198	- / 24.294	- / 28.731	- / 44.346	- / -	- / 44.346	- / 25.043	- / 27.768	- / 28.324	- / 28.890	- / 562.400	- / 945.994	
Non-Recurring													
1.2.1) Archived BKits Non-Recurring - Organic	- / 28.945	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.945	
Subtotal: Non-Recurring	- / 28.945	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 28.945	
Subtotal: AN/APR-39 RWR (OSIP 014-90)	34 / 205.143	29 / 24.294	35 / 28.731	48 / 44.346	- / -	48 / 44.346	22 / 25.043	25 / 27.768	25 / 28.324	25 / 28.890	466 / 562.400	709 / 974.939	
Subtotal: Procurement, All Modification Items	- / 205.143	- / 24.294	- / 28.731	- / 44.346	- / -	- / 44.346	- / 25.043	- / 27.768	- / 28.324	- / 28.890	- / 562.400	- / 974.939	
Support (All Modification Items)													
2.1) ECO	- / 26.556	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.556	
2.2) Support/Training Equipment	- / 4.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.115	
2.3) D(V)2 System ECP ⁽³⁾	- / 58.241	- / 3.842	- / 3.156	- / 3.343	- / -	- / 3.343	- / 3.053	- / 2.422	- / 2.369	- / 2.340	- / 42.500	- / 121.266	
2.4) C(V)2 System SW	- / 4.607	- / 0.405	- / 0.406	- / 0.327	- / -	- / 0.327	- / 0.328	- / 0.329	- / 0.236	- / 0.240	- / 0.535	- / 7.413	
2.5) D(V)2 System SW ⁽⁴⁾	- / 9.258	- / 3.613	- / 2.893	- / 3.193	- / -	- / 3.193	- / 2.919	- / 2.933	- / 2.501	- / 2.658	- / 23.339	- / 53.307	
2.6) Data	- / 1.024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.024	
2.7) ILS	- / 6.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.660	
2.8) Other Support	- / 55.809	- / 0.648	- / 0.811	- / 0.937	- / -	- / 0.937	- / 0.768	- / 0.958	- / 1.034	- / 0.909	- / 16.520	- / 78.394	
2.9) Ground/Flight Test Support	- / 5.453	- / 4.179	- / 2.302	- / 1.244	- / -	- / 1.244	- / 0.887	- / 1.023	- / 0.974	- / 1.074	- / 17.350	- / 34.486	
Subtotal: Support	- / 171.723	- / 12.687	- / 9.568	- / 9.044	- / -	- / 9.044	- / 7.955	- / 7.665	- / 7.114	- / 7.221	- / 100.244	- / 333.221	
Installation													

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 1 / AN/APR-39 RWR (OSIP 014-90)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: AN/APR-39 RWR (OSIP 014-90)		
Footnotes: (1) Price difference between V-22 and H-1 is because the V-22 configuration requires two additional receivers. FY20 quantities and cost increased to support the V-22 retrofit; FY21-24 the system cost increases per the cost model projections. (2) FY20 qty and cost increased to support the H-1 retrofit. (3) FY20 cost increased to support the D(V)2 System ECP integration for the CH-53E. (4) D(V) Systems software increased due to resolving software deficiencies discovered during ground and flight test. FY20 cost increased to support the D(V)2 System Software integration for the CH-53E.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	189.233	13.706	4.403	2.820	0.000	2.820	0.000	0.000	0.000	0.000	7.587	217.749
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	189.233	13.706	4.403	2.820	0.000	2.820	0.000	0.000	0.000	0.000	7.587	217.749
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	189.233	13.706	4.403	2.820	0.000	2.820	0.000	0.000	0.000	0.000	7.587	217.749
<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: DESCRIPTION/JUSTIFICATION: The replacement of the AN/ALE-39 Dispenser System with the AN/ALE-47 will correct serious safety problems and greatly improve aircraft survivability. As a joint program, Under Secretary of Defense (Acquisition Technology & Logistics) memo of November 1986 directed the United States Navy (USN) and United States Army (US Army) to participate in the United States Air Force (USAF) Engineering Manufacturing Development (EMD) phase. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The AN/ALE-47 system is in production and being installed in multiple USN, USMC and USAF aircraft. This OSIP provides funding for retrofit installation of AN/ALE-47 on F/A-18/C/D aircraft lots 12-17 and to procure new AN/ALE-47 Test Sets (ALM-290) to replace original version ALM-286s. FY18 Budget increased by \$10.65M, in which \$7M was due to the ALE-47 System implementing an organic government Engineering Change Proposal (ECP) to upgrade both hardware and software of the AN/ALE-47 Countermeasures Dispensing Set (CMDs) Programmer in FY18/19. This change will allow for one common Operational Flight Program (OFP) configuration with requirements derived from integrated Aircraft Survivability Equipment (iASE) initial capabilities document (ICD) in support of improved aircrew situational awareness and the baseline for interfacing with platform ASE sensors and Position, Navigation and Time (PNT) data. The ECP modification will take legacy systems and prime them to digitally interface with emerging aircraft networks, thus increasing platform survivability and battlespace awareness for ownship, wingman, and FOB commands. The capability aligns with and supports Joint networked CONOPS for survivability and lethality. The remaining \$3.65M was a result of procuring Power PC Circuit Card Assemblies to retrofit ALE-47 programmers on aircraft scheduled for incorporation but unable to get upgraded capability during production. FY 2020 is last funded year, leaving a Cost-to-Complete quantity of (29) for the planned aircraft modifications to accommodate F/A-18 aircraft with extended service life. Operational Program Improvement associated with commonality of expendable form factors across DoD and Joint Partners is future focus for Common Carriage Program providing an increase in expendable capacity and operational readiness while reducing logistics footprint.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment						Modification Number / Title: 2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: CH-53E, EA-6B,UH-1N, MH-53E, F/A-18C/D, AV-8B, MV-22, KC-130F/R/T, H-60, P-3				Modification Type: MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan (* Indicates the modification is being installed organically and no installation funds are required.)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Archived AKits/Recurring - Organic ^(*)	2,539 / 20.679	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,539 / 20.679	
1.1.2) F/A-18 A-Kit - NonOrganic ⁽⁵⁾ <i>Installation 1 of 1</i>	226 / 10.677	25 / 1.100	15 / 0.910	5 / 0.435	- / -	5 / 0.435	- / -	- / -	- / -	- / -	29 / 1.503	300 / 14.625	
1.2.1) Archived AKits/Non-Recurring - Organic ^(*)	22 / 6.458	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 6.458	
2.1.1) Archived BKits/Recurring - Organic ^(*)	6,120 / 74.298	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6,120 / 74.298	
2.1.2) F/A-18 B Kits - Organic ^(*) (6)	226 / 7.766	25 / 0.400	15 / 0.240	5 / 0.110	- / -	5 / 0.110	- / -	- / -	- / -	- / -	29 / 1.392	300 / 9.908	
2.1.3) Installment Equipment - Organic ^(*) (7)	- / -	650 / 3.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	650 / 3.650	
Subtotal: Procurement	- / 119.878	- / 5.150	- / 1.150	- / 0.545	- / -	- / 0.545	- / -	- / -	- / -	- / -	- / 2.895	- / 129.618	
Support													
3.1) Archived Support Costs No Longer Funded In FYDP	- / 9.926	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.926	
3.2) F/A-18 ALM-290 Test Sets ⁽⁸⁾	- / 2.510	- / 0.301	- / 0.570	- / 0.250	- / -	- / 0.250	- / -	- / -	- / -	- / -	- / 0.725	- / 4.356	
3.3) Other Support	- / 43.015	- / 7.335	- / 1.957	- / 1.638	- / -	- / 1.638	- / -	- / -	- / -	- / -	- / 2.205	- / 56.150	
Subtotal: Support	- / 55.451	- / 7.636	- / 2.527	- / 1.888	- / -	- / 1.888	- / -	- / -	- / -	- / -	- / 2.930	- / 70.432	
Installation													
Installation 1 of 1: GRP: F/A-18C Installation Costs	- / 13.904	- / 0.920	- / 0.726	- / 0.387	- / 0.000	- / 0.387	- / -	- / -	- / -	- / -	- / 1.762	- / 17.699	
Subtotal: Installation	- / 13.904	- / 0.920	- / 0.726	- / 0.387	- / -	- / 0.387	- / -	- / -	- / -	- / -	- / 1.762	- / 17.699	
Total													
Total Cost (Procurement + Support + Installation)	189.233	13.706	4.403	2.820	0.000	2.820	0.000	0.000	0.000	0.000	7.587	217.749	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Installation 1 of 1: GRP: F/A-18C Installation Costs

Manufacturer Information

Manufacturer Name: NAWC Weapon Center	Manufacturer Location: China Lake, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 4

Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Nov 2017	Nov 2018	Nov 2019				
Delivery Dates	Feb 2018	Feb 2019	Feb 2020				

Installation Information

Method of Implementation: Depot Level Installation:: Installation Name: F/A-18C Installation Costs

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	226 / 13.904	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	226 / 13.904
FY 2018	- / -	25 / 0.920	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	25 / 0.920
FY 2019	- / -	- / -	15 / 0.726	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	15 / 0.726
FY 2020	- / -	- / -	- / -	5 / 0.387	0 / 0.000	5 / 0.387	- / -	- / -	- / -	- / -	0 / 0.000	5 / 0.387
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 1.762	29 / 1.762
Total	226 / 13.904	25 / 0.920	15 / 0.726	5 / 0.387	0 / 0.000	5 / 0.387	- / -	- / -	- / -	- / -	29 / 1.762	300 / 17.699

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	226	-	8	9	8	-	5	5	5	-	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	300	
Out	218	8	-	8	9	8	-	5	5	6	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	29	300	

Footnotes:

⁽⁵⁾ F/A-18 A-Kit: During FY 2017 thru FY 2020 A-kits are being procured for F/A-18C 2-dispenser, F/A-18D 2-dispenser, and F/A-18D 4-dispenser configurations. The A-kit components and unit costs vary, depending on which type, model, series (TMS) being modified and quantity of dispensers (2 or 4 each) per TMS. The FY 2019 cost increase was driven by additional F/A-18Ds becoming available for Air Frame Change (AFC)-566, which requires (4) dispensers and requires increased hours to complete modification. Commander, Naval Air Forces (CNAF) is continuing extension of flight hours and service life on the F/

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 2 / ALE-39 TO ALE-47 RETROFIT (OSIP 006-00)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
A-18s, possibly to FY 2031, to fill strike fighter shortfall, requiring additional aircraft modifications. FY19 Congressional action reduced FY19 funded installations from (25) to (15) aircraft. FY20 added (5) retrofit installations creating a new To-Complete quantity of (29) for the planned aircraft modifications to accommodate F/A-18 aircraft with extended service life. To Complete Cost increase for installations is due to remaining installations being F-18D four (4) dispenser configuration which increases both hardware and labor installation above prior two (2) dispenser aircraft configurations. ⁽⁶⁾ F/A-18 B Kits: FY 2019 B-Kit cost increase is due to procurement of new B-kit components (prior year B-kit components were reused or reconditioned from retiring aircraft with ALE-47 installed). B-kit unit cost and the component quantities vary depending on aircraft configuration: "D" model aircraft have (4) dispensers vice (2) for "C" model aircraft. The Technical Directive for AFC-566 was approved to allow for stand-alone modifications, which provides increased schedule flexibility ALE-47 Retrofit aircraft induction without schedule delays of concurrent aircraft modifications. FY20 added (5), leaving a Cost-To-Complete quantity of (29) for the planned aircraft modifications to accommodate F/A-18 aircraft with extended service life. To Complete Cost increase for installations is due to remaining installations being F-18D four (4) dispenser configuration which increases both hardware and labor installation above prior two (2) dispenser aircraft configurations. ⁽⁷⁾ Installation Equipment FY18 Budget of \$3.65M was added for the procurement of Circuit Cards Assemblies to retrofit ALE-47 programmers on aircraft scheduled for incorporation but unable to get upgraded capability during production due to contract delays. ⁽⁸⁾ F/A-18 ALM-290 Test Sets: FY 2019 cost increase for the ALM-290 test sets is due to implementation of AFC-566 which increases ALE-47 O-Level maintenance test equipment allowances per squadron, requiring additional quantity procurement. In addition, ALM-290 unit cost increase of the ALM-290s is due to redesign for miscellaneous components obsolescence.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 3 / DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM / AAQ-24 (OSIP 005-08)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	671.514	89.763	74.708	61.957	3.406	65.363	69.331	74.403	74.479	75.899	428.610	1,624.070
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	671.514	89.763	74.708	61.957	3.406	65.363	69.331	74.403	74.479	75.899	428.610	1,624.070
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	671.514	89.763	74.708	61.957	3.406	65.363	69.331	74.403	74.479	75.899	428.610	1,624.070
(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:

DESCRIPTION/JUSTIFICATION: The AN/AAQ-24 Department of the Navy, Large Aircraft Infrared Countermeasures (DoN LAIRCM) System (B-kit) consists of 5 components: Missile Warning Sensor (MWS, 5 or 6), processor (1), Guardian Laser Transmitter Assembly (GLTA, 2) and Controller Interface Unit (CIU) (1). The Defense Intelligence Agency (DIA) System Threat Assessment Report (STAR) and current United States Marine Corps (USMC) operations pose surface to air threats requiring DoN LAIRCM capabilities to maintain survivability against improved Man-Portable Air Defense Systems (MANPADS), Rocket Propelled Grenades (RPG), hostile gunfire, Anti-Aircraft Artillery (AAA) and laser-directed weapons. This budget supports procurement, Engineering Change Proposals (ECPs), integration, validation, Follow-on Test and Evaluation (FOT&E) and fielding of DoN LAIRCM systems on CH-53E/K, KC-130J, P-8A, CMV-22 and MV-22 platforms in accordance with Statement of Operational Requirement Document (ORD) number 756-88-08. Based on FY 2015 Joint Urgent Operational Needs Statement (JUONS) SO-0010, United States Special Operations Command (SOCOM) and United States of Army (USA) programs have approved requirements for DoN LAIRCM integration. This program has the capability to store sensor data for post mission threat analysis. The DoN LAIRCM program integrates hardware/software solutions that link onboard integrated Aircraft Survivability Equipment (iASE) which are compatible with the mission planning information. The DoN LAIRCM configurations include the 5 or 6 sensor, the GLTA or the Non-GLTA.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: DoN LAIRCM program achieved MS C/ Full Rate Production in January 2010. The Engineering Change Proposals (ECP) provide required improvements and address identified deficiencies (e.g. Advanced Threat Warning (ATW) to improved Missile Warning Sensor (MWS) Probability of detection (Pd), False Alarm Reduction (FAR), threat information for Smart Dispensing, Hostile Fire Indication (HFI) and Laser Warning (LW)). FY2018 OCO funding procured 12 DoN LAIRCM B-kits with ATW sensor capability for MV-22 aircraft supporting SPMAGTF operations. FY18 A/C Integration NRE cost increased due to Processor upgrade requirements. FY18 B-kit quantity reduced by four systems and reduced S/W Upgrade funding and realigned funds to support DoN LAIRCM Processor Upgrade (DLPU) and A/C Integration NRE. FY20 funds will procure LRIP DLPU assets to integrate and validate the upgraded DoN LAIRCM system in 2021.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment				Modification Number / Title: 3 / DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM / AAQ-24 (OSIP 005-08)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53E, CH-53K , MV-22, P-8A, KC-130J, C-20, C-40, CV-22, CVM-22				Modification Type: MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM /AAQ-24 (OSIP 005-08)													
B Kits													
Recurring													
1.1.1) Archived B Kits - Organic		105 / 168.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 168.082	
1.1.2) DIRCM (B Kits) MV-22 - Organic ⁽⁹⁾		30 / 66.538	6 / 12.589	24 / 60.221	22 / 51.551	- / -	22 / 51.551	23 / 54.374	20 / 47.328	19 / 46.687	20 / 50.078	138 / 326.508	302 / 715.874
1.1.3) OCO DIRCM (B Kits) MV-22 - Organic		- / -	12 / 31.874	- / -	- / 0.000	1 / 2.343	1 / 2.343	- / -	- / -	- / -	- / -	- / -	13 / 34.217
1.1.4) DIRCM (B Kits) KC-130J - Organic		22 / 51.496	8 / 16.786	2 / 4.865	- / -	- / -	- / -	2 / 3.974	7 / 14.137	8 / 16.141	8 / 16.141	18 / 36.317	75 / 159.857
1.1.5) ATW Retrofit Kits - Organic		119 / 113.291	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	119 / 113.291
1.1.6) P3I Retrofit - Organic		- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 1.836	44 / 3.300	24 / 1.909	231 / 19.635	323 / 26.680
Subtotal: Recurring		- / 399.407	- / 61.249	- / 65.086	- / 51.551	- / 2.343	- / 53.894	- / 58.348	- / 63.301	- / 66.128	- / 68.128	- / 382.460	- / 1,218.001
Non-Recurring													
1.2.1) A/C Integration NRE - Organic ⁽¹⁰⁾		- / 19.962	- / 16.636	- / -	- / 1.937	- / -	- / 1.937	- / 1.899	- / 1.895	- / 1.842	- / 1.410	- / -	- / 45.581
1.2.2) Navy Test - Organic ⁽¹¹⁾		- / 16.155	- / 2.190	- / 2.390	- / 2.274	- / -	- / 2.274	- / 2.457	- / 2.787	- / 1.422	- / 1.036	- / -	- / 30.711
1.2.3) OCO Navy Test - Organic		- / 1.342	- / 0.282	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.624
1.2.4) Archived B Kits Non Recurring - Organic		- / 45.159	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 45.159
Subtotal: Non-Recurring		- / 82.618	- / 19.108	- / 2.390	- / 4.211	- / -	- / 4.211	- / 4.356	- / 4.682	- / 3.264	- / 2.446	- / 0.000	- / 123.075
Subtotal: DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM /AAQ-24 (OSIP 005-08)		276 / 482.025	26 / 80.357	26 / 67.476	22 / 55.762	1 / 2.343	23 / 58.105	25 / 62.704	51 / 67.983	71 / 69.392	52 / 70.574	387 / 382.460	937 / 1,341.076
Subtotal: Procurement, All Modification Items		- / 482.025	- / 80.357	- / 67.476	- / 55.762	- / 2.343	- / 58.105	- / 62.704	- / 67.983	- / 69.392	- / 70.574	- / 382.460	- / 1,341.076
Support (All Modification Items)													
2.1) Software Upgrade ⁽¹²⁾		- / 1.226	- / 1.725	- / 2.064	- / 1.837	- / -	- / 1.837	- / 1.699	- / 1.330	- / 0.409	- / 0.691	- / 18.500	- / 29.481
2.2) OCO Support Equipment		- / -	- / 0.670	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.670
2.3) Support Equipment		- / 5.540	- / 0.624	- / 0.624	- / 0.612	- / -	- / 0.612	- / 0.690	- / 0.690	- / 0.505	- / 0.705	- / 7.150	- / 17.140
2.4) ILS		- / 15.995	- / 2.745	- / 0.377	- / 0.312	- / -	- / 0.312	- / 0.185	- / 0.273	- / -	- / -	- / -	- / 19.887
2.5) OCO Other Support		- / -	- / 1.734	- / -	- / 0.000	- / 1.063	- / 1.063	- / -	- / -	- / -	- / -	- / -	- / 2.797

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LI 0576 - Common ECM Equipment
Navy

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 3 / DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM / AAQ-24 (OSIP 005-08)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: DIRECTED INFRARED COUNTERMEASURE DoN LAIRCM /AAQ-24 (OSIP 005-08)		
Footnotes: (9) DoN LAIRCM unit cost varies based on platform configuration (WRA qty) and combined procurements for other customers. FY21-24: MV-22 Total Quantity initially assumed 1/3 of MV-22s would receive GLTAs (completed in 2021); the remainder would be procured without GLTA. MV-22 has determined final configuration will be full B-kits (to include GLTAs) for all installs. The increase in unit cost based on full B-kits results in deltas each year for MV-22 and KC-130J requirements for FY-21-24. (10) 1.2.1 FY20 funding increased in FY20 to support the lead platform aircraft integration. (11) FY19 - FY22 Navy Test increased to support the Lead Platform Aircraft test. (12) Software Upgrade funding increases to support multiple platform integration and S/W encryption of the system OFP and the processor upgrade software.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 4 / COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	427.339	44.826	66.854	44.672	0.000	44.672	43.347	49.750	50.568	52.261	31.683	811.300
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	427.339	44.826	66.854	44.672	0.000	44.672	43.347	49.750	50.568	52.261	31.683	811.300
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	427.339	44.826	66.854	44.672	0.000	44.672	43.347	49.750	50.568	52.261	31.683	811.300
<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: DESCRIPTION/JUSTIFICATION: Integrated Defensive Electronic Countermeasure (IDECM) Block (IB-4) is an Engineering Change Proposal (ECP) to the ALQ-214 intended to render it suitable for operation on the F/A-18C/D aircraft equipped with ALR-67(V)2 or ALR-67(V)3 Radar Warning Receivers, while retaining all IDECM suite functionality when installed on F/A-18E/F aircraft. This ECP will result in a Common On-Board Jammer (COBJ) system that must meet the requirements of the COBJ Block 2 Operational Requirements Document (ORD) #624-78-03 and be compatible with the ALE-55 Fiber Optic Towed Decoy (FOTD). The Integrated Multi-Platform Launch Controller (IMPLC) provides power and communications interface with the ALE-50 and ALE-55 components of the IDECM EW Suite on the F/A-18 E/F aircraft. The Electronic Frequency Converter (EFC) enables dataflow via the fiber optic cable to the FOTD and is part of the IB-4 configuration when installed on the F/A-18E/F aircraft. This Operational Safety Improvement Program (OSIP) is for the onboard portion of the IB-4 configuration. This OSIP also includes procurement of hardware/software solutions that link on-board integrated Aircraft Survivability Equipment (iASE) that are compatible with mission planning information and systems intended to address current and future aircraft threats and modeling and simulation for improved countermeasure capabilities. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The ALQ-214 received Milestone III approval in January 2004 and is still in Full-Rate Production (FRP). FRP 9 was the first ALQ-214 production lot in the IB-4 configuration and was awarded 3rd Qtr FY 2012. Annual production contract awards are expected to continue through FY 2027. A total of 324 IB-4 ALQ-214s are planned for procurement.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment						Modification Number / Title: 4 / COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F/A-18C/D/E/F				Modification Type: MISSION CAPABILITY				Related RDT&E PEs: 0604270N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12)													
B Kits													
Recurring													
1.1.1) Archived B Kits Install Equipment - Organic	263 / 34.971	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	263 / 34.971	
1.1.2) ALQ-214 Retrofit Kits (E/F) Install Equipment - Organic	379 / 6.184	29 / 0.590	42 / 0.855	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	450 / 7.629	
1.1.3) ALQ-214 Install Equipment - Organic ⁽¹³⁾	180 / 344.464	18 / 31.995	13 / 23.462	19 / 36.876	- / -	19 / 36.876	18 / 35.898	23 / 44.514	23 / 45.149	24 / 47.178	6 / 16.519	324 / 626.055	
1.1.4) ALQ-214 SRA Retrofit - Organic ⁽¹⁴⁾	- / -	- / -	60 / 20.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 20.000	
Subtotal: Recurring	- / 385.619	- / 32.585	- / 44.317	- / 36.876	- / -	- / 36.876	- / 35.898	- / 44.514	- / 45.149	- / 47.178	- / 16.519	- / 688.655	
Non-Recurring													
1.2.1) B-Kits Non Recurring - Organic	- / 1.319	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.319	
Subtotal: Non-Recurring	- / 1.319	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.319	
Subtotal: COMMON ON-BOARD JAMMER (OBJ) (OSIP 004-12)	822 / 386.938	47 / 32.585	115 / 44.317	19 / 36.876	- / -	19 / 36.876	18 / 35.898	23 / 44.514	23 / 45.149	24 / 47.178	6 / 16.519	1,097 / 689.974	
Subtotal: Procurement, All Modification Items	- / 386.938	- / 32.585	- / 44.317	- / 36.876	- / -	- / 36.876	- / 35.898	- / 44.514	- / 45.149	- / 47.178	- / 16.519	- / 689.974	
Support (All Modification Items)													
2.3) Training Equipment	- / 0.855	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.855	
2.6) Other Support ⁽¹⁵⁾	- / 39.546	- / 12.241	- / 12.221	- / 7.796	- / -	- / 7.796	- / 7.449	- / 5.236	- / 5.419	- / 5.083	- / 15.164	- / 110.155	
2.8) Peculiar Support Equipment ⁽¹⁶⁾	- / -	- / -	- / 10.316	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.316	
Subtotal: Support	- / 40.401	- / 12.241	- / 22.537	- / 7.796	- / -	- / 7.796	- / 7.449	- / 5.236	- / 5.419	- / 5.083	- / 15.164	- / 121.326	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	427.339	44.826	66.854	44.672	0.000	44.672	43.347	49.750	50.568	52.261	31.683	811.300	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 4 / COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: COMMON ON-BOARD JAMMER (OBJ)(OSIP 004-12)		
Footnotes: ⁽¹³⁾ Unit cost may vary from year to year due to variation of quantities funded from other sources (FMS, APN1, APN6,...). ⁽¹⁴⁾ \$20M Navy UFR: F/A-18E/F Super Hornet Adaptive RADAR countermeasures (DRTG G2 SRA Retrofit) ⁽¹⁵⁾ ALQ-214 Other Support: Funding supports annual ALQ-214 Repair and Field Support Contract as well as Program and Engineering Support. ⁽¹⁶⁾ FY 2019 funds realigned to support ALQ-214 peculiar support equipment requirements to Improve Repair Turnaround Time(RTAT)on the ALQ-214 WRA NAVAIR Test Assets.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 5 / ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2.342	0.752	0.954	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.048
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2.342	0.752	0.954	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.048
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2.342	0.752	0.954	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.048
<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: DESCRIPTION/JUSTIFICATION: This Operational Safety Improvement Program (OSIP) is for the correction of discrepancies to affect changes to assault Electronic Countermeasure (ECM) equipment in aircraft that have been delivered for fleet operations. These ECM systems require various upgrade initiatives and logistic support to keep these aircraft mission capable with a robust defensive system that ensures its survivability. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The contract will modify shop replaceable assemblies with diminished manufacturing source issues and conduct engineering change proposals, and verify testing and evaluations of modification designs. The United States Navy Fleet Support Team will provide system engineering qualifications on aircraft, support equipment, write technical directives, upgrade technical data and perform any additional integrated logistics support requirements. United States Navy and contractor software support activities will integrate software as needed.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment						Modification Number / Title: 5 / ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: MH-SH-60 R/S, AH-1W				Modification Type: SAFETY/RELIABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)													
B Kits													
Recurring													
2.1.1) Infrared Source - Organic ⁽¹⁷⁾	270 / 1.222	173 / 0.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	443 / 1.914	
<i>Subtotal: Recurring</i>	- / 1.222	- / 0.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.914	
Non-Recurring													
2.2.1) B-Kits NRE - Organic	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.600	
<i>Subtotal: Non-Recurring</i>	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.600	
<i>Subtotal: ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)</i>	270 / 1.822	173 / 0.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	443 / 2.514	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.822	- / 0.692	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.514	
Support (All Modification Items)													
3.1) Other Support	- / 0.520	- / 0.060	- / 0.954	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.534	
<i>Subtotal: Support</i>	- / 0.520	- / 0.060	- / 0.954	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.534	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	2.342	0.752	0.954	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.048	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 5 / ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: ASSAULT CORRECTION OF DISCREPANCIES (OSIP 004-15)		
Footnotes: ⁽¹⁷⁾ FY19 fund execution realigned into Other Support to address software discrepancies in Assault aircrafts.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 6 / ASSAULT DIRCM (OSIP 018-17)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	27.460	40.970	9.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	78.250
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	27.460	40.970	9.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	78.250
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	27.460	40.970	9.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	78.250
<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: Description: Assault Directed Infrared Countermeasure (ADIRCM) is the budget name for DAIRCM which is a lightweight Threat Warning System (TWS) and Infrared Countermeasure (IRCM) developed by the Navy Research Lab under an FY 2004 Office of Naval Research Future Naval Capability (FN04-03), Integrated E/O IR Self-Protect Suite for Rotary Wing Aircraft. PMA272 has funded this Future Naval Capability (FNC) since 2006 as a risk mitigation for both the Joint and Allied Threat Awareness System (JATAS) and the Common Infrared Countermeasures (CIRCM) system. The DAIRCM nomenclature is the AAQ-45 System which offers significant savings in Size, Weight and Power (SWaP) and cost avoidance. The system consists of a centralized processor and laser with high power fiber optic cables leading to 4-6 two-color IR sensors. Each sensor incorporates a pointer tracker, which allows laser energy to be focused on incoming threats. FY 2017 through FY 2019 Overseas Contingency Operations (OCO) funds for AAQ-45 provides increased survivability against Man-Portable Air Defense Systems (MANPADS), Rocket Propelled Grenades (RPG), hostile gunfire, Anti-Aircraft Artillery (AAA) and laser-directed weapons for combat, assault rotary wing and fixed wing aircraft in theater. FY 2017 OCO funds completed the original Joint Urgent Operational Need Statement (JUONS) fielding requirements. FY 2018 OCO funds are required to procure assets in support of fielding two additional Marine Expeditionary Units (MEUs). The FY 2018 OCO ensures the capability to conduct missions in areas where the JUONS threat exists until the Program of Record (PoR) assets can be fielded. FY 2019 OCO funds are required to procure assets in support of fielding MH-60S on two additional MEU's. Developmental efforts: JUONS phase includes the Non-Recurring Engineering (NRE) required to develop integrate and test all hardware, software and firmware to field AAQ-45. Efforts will also include the manufacturing of AAQ-45 test articles, test bench fixtures, fleet representative hardware and system training. The driving requirements can be found in the classified JUONS SO-0010 and the classified Request for Initiation of Rapid Deployment Capability (RDC) process for an Advanced Threat Warning and Inexhaustible Infrared Countermeasure for Rotary Wing Aircraft (RDC Ser N9/16S139158). Two prime contractors, DRS and Daylight Solutions were awarded sole source contracts for the AAQ-45 Weapons Replaceable Assemblies (WRA). During the JUONS phase, the AAQ-45 system will be installed on the following United States Navy (USN)/United States Marine Corps (USMC) aircraft identified in JUONS SO-0010: AH-1Z, UH-1Y, and MH-60S. The AAQ-45 configuration on these aircraft will include one processor, one laser and four sensors. The USN's MH-60S is the lead platform for AAQ-45 JUONS configuration.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment						Modification Number / Title: 6 / ASSAULT DIRCM (OSIP 018-17)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: AH-1Z, UH-1Y, MH-60S				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> ASSAULT DIRCM (OSIP 018-17)													
B Kits													
Recurring													
1.1.1) OCO Install Equip AH-1Z - Organic	5 / 9.725	10 / 11.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 21.225	
1.1.2) OCO Install Equip UH-1Y - Organic	4 / 7.780	8 / 9.395	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 17.175	
1.1.3) OCO Install Equip MH-60S - Organic ⁽¹⁸⁾	13 / 5.835	12 / 11.269	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 17.104	
<i>Subtotal: Recurring</i>	- / 23.340	- / 32.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 55.504	
<i>Subtotal: ASSAULT DIRCM (OSIP 018-17)</i>	22 / 23.340	30 / 32.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 55.504	
<i>Subtotal: Procurement, All Modification Items</i>	- / 23.340	- / 32.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 55.504	
Support (All Modification Items)													
2.1) OCO Other Support ⁽¹⁹⁾	- / 4.120	- / 8.806	- / 9.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.746	
<i>Subtotal: Support</i>	- / 4.120	- / 8.806	- / 9.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 22.746	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	27.460	40.970	9.820	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	78.250	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0576 / Common ECM Equipment	Modification Number / Title: 6 / ASSAULT DIRCM (OSIP 018-17)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: ASSAULT DIRCM (OSIP 018-17)		
Footnotes: (18) FY18 quantities increased by 6 systems due to cost savings achieved during contract negotiations. FY19 quantities were procured with FY18 funds. (19) FY19 Other Support: Funding supports Support Equipment modifications, program, engineering and test support. Realignment of funds into "other support" occurred as an isolated event in FY19 due to cost savings achieved in negotiations.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment						Modification Number / Title: 7 / INACTIVE OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	739.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	739.204
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	739.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	739.204
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	739.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	739.204
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0576 / Common ECM Equipment					Modification Number / Title: 7 / INACTIVE OSIPs				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIP - Organic ^(*)	- / 739.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 739.204	
Subtotal: Procurement	- / 739.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 739.204	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	739.204	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	739.204	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0577 / Common Avionics Changes					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	2,601.936	107.249	117.551	102.107	0.000	102.107	108.559	106.738	129.090	132.152	430.757	3,836.139
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	2,601.936	107.249	117.551	102.107	0.000	102.107	108.559	106.738	129.090	132.152	430.757	3,836.139
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	2,601.936	107.249	117.551	102.107	0.000	102.107	108.559	106.738	129.090	132.152	430.757	3,836.139
<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: This line item funds common avionics equipment for multiple aircraft. The specific modifications budgeted and programmed are: -The Navigation Satellite Timing and Ranging Global Positioning System (GPS) Naval Warfare program is designed to provide a highly accurate position and time to users worldwide in all weather conditions. The GPS will interface with communication, navigation, and weapon systems equipment (standard attitude heading reference systems, inertial navigation systems, on-board computers, etc.) in selected applications. GPS is a Department of Defense mandated requirement for all aircraft operating in the National Air Space System after the year 2000. -GPS Modernization is designed to provide GPS Electronic Protection from jamming and interference, support GPS Electronic Attack by denying hostile forces access to space based Positioning, Navigation, and Timing (PNT) information, and GPS Electronic Support by detection, characterization, and geo-location of intentional PNT jamming and unintentional interference sources with the intent to neutralize those sources and mitigate their effects. -Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) provides civil upgrades to communication, navigation, and surveillance systems enabling global access to increasingly congested airspace, and GPS based routes and procedures. -Avionics Component Improvement Program (AvCIP) provides resources to address avionics component critical readiness degraders, performance reliability deficiencies, obsolescence threatening loss of sustainability and top Fleet operational or support cost drivers. -Secure Communications (SECOM) Avionics Modernization Program provides secure Ultra High Frequency/Very High Frequency, Amplitude Modulation/Frequency Modulation, Anti-Jam radio systems for Line of Sight and Beyond Line of Sight Satellite Communication voice and data communications including modernized cryptographic capabilities and anti-jam waveforms. -Common Mission Computing and Displays (CMCD) modifies unsustainable mission computers, mission processing capacity and display solutions; while providing improved capacity to meet expanding mission and data transfer requirements while reducing time and minimizing investment cost required to manage obsolescence and integrate new capabilities. This government owned Open Architecture (OA) family of systems for multi-platform applications will be tailored and configured as an enabler to implement current and future capabilities through the Government's organic Multi-Use Laboratory Environment (MULE).												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0577 / Common Avionics Changes
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		
MULE will conduct these activities over the equipment's life cycle while reducing dependency on aircraft manufacturers during technology refreshes and capability insertions. CMCD will contain Commercial Off the Shelf (COTS) modules that will be integrated with Government owned Core Level Software (CLS) through an organically managed program. This OSIP will centrally manage the fielded systems across multiple platforms to create efficiencies and cost saving to the Naval Aviation Enterprise. Note: CMCD (OSIP 06-20) is not a new start. This OSIP leverages previous efforts to produce, test and certify a common mission computing product. These additional funds cover modification of the baseline framework to re-host the T-45C legacy Operational Flight Plan (OFP), partition separable OA environments, implement a common open software application for Required Navigation Performance Required Navigation (RNP RNAV), and field the associated retrofits. This OSIP will be used to integrate programmed and planned requirements on multiple T/M/S aircraft through modification of legacy saturated computing and obsolete display solutions.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0577 / Common Avionics Changes				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Global Positioning System (GPS) (OSIP 71-88) (Common Avionics (Safety) (Added Capability))				- / 390.528	- / 12.431	- / 7.543	- / 8.118	- / 0.000	- / 8.118
P-3a	2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01) (Common Avionics Modification)				- / 1,077.759	- / 89.694	- / 95.150	- / 31.679	- / 0.000	- / 31.679
P-3a	3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09) (Common Avionics Modification)				- / 30.214	- / 5.124	- / 5.000	- / 5.100	- / 0.000	- / 5.100
P-3a	4 / Secure Communications (OSIP 10-19) (Common Avionics (Modernization))				- / 0.000	- / 0.000	- / 9.858	- / 24.647	- / 0.000	- / 24.647
P-3a	5 / Common Mission Computing and Displays (CMCD) (OSIP 06-20) (Common Avionics (Modernization))				- / 0.000	- / 0.000	- / 0.000	- / 32.563	- / 0.000	- / 32.563
P-3a	6 / Global Positioning System (GPS) Modernization (OSIP 02-22) (Common Avionics (Modernization))				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-3a	7 / Inactive OSIPs (TBD)				- / 1,103.435	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 2,601.936	- / 107.249	- / 117.551	- / 102.107	- / 0.000	- / 102.107
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Global Positioning System (GPS) (OSIP 71-88) (Common Avionics (Safety) (Added Capability))				- / 7.991	- / 9.241	- / 10.771	- / 11.272	- / 102.350	- / 560.245
P-3a	2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01) (Common Avionics Modification)				- / 47.849	- / 21.450	- / 18.603	- / 18.385	- / 5.052	- / 1,405.621
P-3a	3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09) (Common Avionics Modification)				- / 5.202	- / 5.301	- / 5.407	- / 5.510	- / 136.045	- / 202.903
P-3a	4 / Secure Communications (OSIP 10-19) (Common Avionics (Modernization))				- / 22.177	- / 35.532	- / 40.359	- / 42.545	- / 19.781	- / 194.899
P-3a	5 / Common Mission Computing and Displays (CMCD) (OSIP 06-20) (Common Avionics (Modernization))				- / 25.340	- / 25.262	- / 23.582	- / 20.000	- / 24.102	- / 150.849
P-3a	6 / Global Positioning System (GPS) Modernization (OSIP 02-22) (Common Avionics (Modernization))				- / 0.000	- / 9.952	- / 30.368	- / 34.440	- / 143.427	- / 218.187
P-3a	7 / Inactive OSIPs (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 1,103.435
P-40	Total Gross/Weapon System Cost				- / 108.559	- / 106.738	- / 129.090	- / 132.152	- / 430.757	- / 3,836.139
*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 overall goal of the modifications budgeted in Fiscal Year (FY) 2020 is to procure the common equipment required for the individual aircraft platforms.										

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0577 / Common Avionics Changes
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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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 1 / Global Positioning System (GPS) (OSIP 71-88)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	390.528	12.431	7.543	8.118	0.000	8.118	7.991	9.241	10.771	11.272	102.350	560.245
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	390.528	12.431	7.543	8.118	0.000	8.118	7.991	9.241	10.771	11.272	102.350	560.245
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	390.528	12.431	7.543	8.118	0.000	8.118	7.991	9.241	10.771	11.272	102.350	560.245
<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 Navigation Satellite Timing and Ranging (NAVSTAR) Global Positioning System (GPS) is designed to provide highly accurate position and time to users worldwide in all weather conditions. GPS will be integrated with communication, navigation, and weapon systems equipment (attitude heading reference systems, inertial navigation systems, mission computers, etc.). The program procures and modifies GPS equipment such as receivers, antennas, amplifiers, and protection technologies as required for naval aviation platforms. Navigation Warfare (NAVWAR) technologies protect a platform's GPS capability from GPS jamming and unintentional interference. Hardware configurations vary with each Type/Model/Series aircraft. The GPS Operational Requirement Document (ORD) 003-78 dated 22 January 1990 was based on an Air Force General Operating Requirement dated 28 January 1978. The Navy ORD for Enhanced GPS User Equipment for NAVWAR and GPS Modernization was approved on 7 June 2000. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The NAVWAR full rate production approval was received in June 2002. Research, Development, Test and Evaluation, Navy is funded under Program Element 0604777N.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes						Modification Number / Title: 1 / Global Positioning System (GPS) (OSIP 71-88)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: All Aircraft as directed by OPNAV				Modification Type: Common Avionics (Safety) (Added Capability)				Related RDT&E PEs: 0604777N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years Qty (Each) / Total Cost (\$ M)	FY 2018 Qty (Each) / Total Cost (\$ M)	FY 2019 Qty (Each) / Total Cost (\$ M)	FY 2020 Base Qty (Each) / Total Cost (\$ M)	FY 2020 OCO Qty (Each) / Total Cost (\$ M)	FY 2020 Total Qty (Each) / Total Cost (\$ M)	FY 2021 Qty (Each) / Total Cost (\$ M)	FY 2022 Qty (Each) / Total Cost (\$ M)	FY 2023 Qty (Each) / Total Cost (\$ M)	FY 2024 Qty (Each) / Total Cost (\$ M)	To Complete Qty (Each) / Total Cost (\$ M)	Total Qty (Each) / Total Cost (\$ M)	
Procurement													
1.1.1) NAVWAR Installation Kits - NonOrganic <i>Installation 1 of 2</i>	152 / 16.722	48 / 4.465	24 / 2.424	24 / 2.448	- / -	24 / 2.448	24 / 2.468	24 / 2.496	24 / 2.520	24 / 2.570	154 / 15.942	498 / 52.055	
1.1.2) Anti-Jam Installation Kits - NonOrganic ⁽¹⁾ <i>Installation 2 of 2</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.553	18 / 0.565	306 / 10.660	342 / 11.778	
1.1.3) Archived ECPs - Organic ^(*)	2,047 / 178.698	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,047 / 178.698	
2.1.1) Installation Kits N/R - Organic ^(*)	- / 4.303	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.303	
3.1.1) NAVWAR Installation Equipment - Organic ^(*)	666 / 36.893	48 / 5.545	24 / 2.424	24 / 2.448	- / -	24 / 2.448	24 / 2.468	24 / 2.496	24 / 2.520	24 / 2.570	154 / 15.942	1,012 / 73.306	
3.1.2) Anti-Jam Installation Equipment - Organic ^(*) ⁽²⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.560	18 / 0.572	306 / 10.791	342 / 11.923	
3.2.1) Installation Equipment N/R. - Organic ^(*)	- / 23.933	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 23.933	
Subtotal: Procurement	- / 260.549	- / 10.010	- / 4.848	- / 4.896	- / -	- / 4.896	- / 4.936	- / 4.992	- / 6.153	- / 6.277	- / 53.335	- / 355.996	
Support													
4.1) NAVWAR Kit ECO	- / 2.547	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.547	
4.2) Data	- / 8.332	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.332	
4.3) Training Equipment - GPS	114 / 7.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	114 / 7.803	
4.4) Training Equipment - NAVWAR	3 / 0.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.529	
4.5) Support Equipment	4 / 1.034	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.034	
4.6) ILS ⁽³⁾	- / 2.995	- / 0.460	- / 0.305	- / 0.300	- / -	- / 0.300	- / 0.306	- / 0.334	- / 0.423	- / 0.433	- / 11.023	- / 16.579	
4.7) Other Support ⁽⁴⁾	- / 101.176	- / 1.630	- / 1.754	- / 1.747	- / -	- / 1.747	- / 1.755	- / 2.313	- / 3.319	- / 3.388	- / 26.550	- / 143.632	
Subtotal: Support	- / 124.416	- / 2.090	- / 2.059	- / 2.047	- / -	- / 2.047	- / 2.061	- / 2.647	- / 3.742	- / 3.821	- / 37.573	- / 180.456	
Installation													
Installation 1 of 2: NAVWAR Installation Kits	- / 5.563	- / 0.331	- / 0.636	- / 1.175	- / 0.000	- / 1.175	- / 0.994	- / 1.602	- / 0.876	- / 0.888	- / 5.678	- / 17.743	
Installation 2 of 2: Anti-Jam Installation Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.286	- / 5.764	- / 6.050	
Subtotal: Installation	- / 5.563	- / 0.331	- / 0.636	- / 1.175	- / -	- / 1.175	- / 0.994	- / 1.602	- / 0.876	- / 1.174	- / 11.442	- / 23.793	
Total													
Total Cost (Procurement + Support + Installation)	390.528	12.431	7.543	8.118	0.000	8.118	7.991	9.241	10.771	11.272	102.350	560.245	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 1 / Global Positioning System (GPS) (OSIP 71-88)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: NAVWAR Installation Kits																															
Manufacturer Information																															
Manufacturer Name: The Boeing Company ⁽⁵⁾															Manufacturer Location: St. Louis, MO																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 25																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2018				Jun 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates		Jun 2020				Apr 2021				Apr 2022				Apr 2023				Apr 2024				Apr 2025				Apr 2026					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: NAVWAR Installation Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		75 / 5.563		11 / 0.331		24 / 0.636		42 / 1.028		0 / 0.000		42 / 1.028		- / -		- / -		- / -		- / -		0 / 0.000		152 / 7.558							
FY 2018		- / -		- / -		- / -		18 / 0.147		0 / 0.000		18 / 0.147		30 / 0.870		- / -		- / -		- / -		0 / 0.000		48 / 1.017							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.124		12 / 0.801		- / -		- / -		0 / 0.000		24 / 0.925							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.801		12 / 0.438		- / -		0 / 0.000		24 / 1.239							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.438		12 / 0.444		0 / 0.000		24 / 0.882							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.444		12 / 0.318		24 / 0.762							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.637		24 / 0.637							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.637		24 / 0.637							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		154 / 4.086		154 / 4.086							
Total		75 / 5.563		11 / 0.331		24 / 0.636		60 / 1.175		0 / 0.000		60 / 1.175		42 / 0.994		24 / 1.602		24 / 0.876		24 / 0.888		214 / 5.678		498 / 17.743							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	75	-	4	4	3	-	8	8	8	-	16	22	22	15	15	6	6	6	6	6	6	6	6	6	6	6	6	6	6	214	498
Out	75	-	4	4	3	-	8	8	8	-	16	22	22	15	15	6	6	6	6	6	6	6	6	6	6	6	6	6	6	214	498

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 1 / Global Positioning System (GPS) (OSIP 71-88)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: Anti-Jam Installation Kits																															
Manufacturer Information																															
Manufacturer Name: Raytheon Systems Limited															Manufacturer Location: United Kingdom																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Jan 2023				Jan 2024					
Delivery Dates																						Dec 2023				Dec 2024					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: Anti-Jam Installation Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 0.286		0 / 0.000		18 / 0.286						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 0.320		18 / 0.320						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		306 / 5.444		306 / 5.444						
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 0.286		324 / 5.764		342 / 6.050				
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	4	4	324	342	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	4	4	324	342	
Footnotes:																															
(1) The APN5 Anti-Jam efforts have been shifted from FY20 to FY23 to align with associated ongoing efforts in RDT&E.																															
(2) The APN5 Anti-Jam efforts have been shifted from FY20 to FY23 to align with associated ongoing efforts in RDT&E.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 1 / Global Positioning System (GPS) (OSIP 71-88)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽³⁾ FY23-FY24: Integrated Logistics Support increased because the Global Positioning System (GPS) Naval Warfare (NAVWAR) budget increased to support the procurement of H-1 Anti-Jam antennas. ⁽⁴⁾ FY22-FY24: Other Support increased because the Global Positioning System (GPS) Naval Warfare (NAVWAR) budget increased to support the procurement of H-1 Anti-Jam antennas. ⁽⁵⁾ NAVWAR: There are multiple A-Kit configurations that drive variation in install cost. Delays in prior year kit installations are due to aircraft availability and requirement to identify assets for a full squadron of 12 aircraft before installs can begin. The associated production lines can support up to 48 total kits. FY18 contract awarded in October 2018 with deliveries starting in June 2020. FY19 contract is expected to award in June 2019 with deliveries starting in April 2021.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,077.759	89.694	95.150	31.679	0.000	31.679	47.849	21.450	18.603	18.385	5.052	1,405.621
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,077.759	89.694	95.150	31.679	0.000	31.679	47.849	21.450	18.603	18.385	5.052	1,405.621
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,077.759	89.694	95.150	31.679	0.000	31.679	47.849	21.450	18.603	18.385	5.052	1,405.621
<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:

Communication Navigation Surveillance/Air Traffic Management (CNS/ATM) provides new and enhanced hardware and software solutions leveraging open architecture where cost effective, to comply with national and worldwide civil and military airspace requirements. Solutions include communication, navigation, surveillance and supporting technologies that facilitate air traffic management, and other civil and military operational capabilities. Impacts of non-compliance with airspace standards will include operational delays, circuitous rerouting, or access denial to controlled airspace.

Prioritization of platform type and quantity is based on missions and anticipated operations in affected airspace. Required functionalities include Mode Select (S), 8.33 kHz Channel Spacing, Required Navigation Performance Area Navigation (RNP RNAV), Reduced Vertical Separation Minimum (RVSM), Automatic Dependent Surveillance - Broadcast (Out) (ADS-B(O)), Mission Planning integration, Protected Instrument Landing System (P-ILS), cockpit aircraft data storage, processing and display capabilities and the procurement of the Flight Management Function (FMF) Enterprise License (Block Buy) for MV-22, MH-60, and T-45 in support of RNP RNAV.

FY18-FY24 cost per quantity variations are due to FY16 reduction that targeted funding in specific Budget Categories: A-Kit Non-Recurring Engineering, B-Kits, B-Kit Non-Recurring Engineering, and Other Support. The reduction resulted in delayed progress on multiple Type/Model/Series aircraft for the CNS/ATM capabilities throughout the Future Years Defense Plan. Additionally, cost per quantity variation is due to variations on multiple T/M/S platform aircraft, platform quantities, associated equipment per platform, and cost per equipment. Some A-Kits consist of a small number of wire bundles while other A-Kits consist of multiple wire bundles and structural components which increase unit cost. B-Kits vary by T/M/S and capability. Kit components within a platform will vary based on the number of configurations within that platform.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

AH-1Z/UH-1Y Mode S (FY18-FY25), ADS-B(O) (FY19-FY25), RNP RNAV (FY19-FY25)
C-130T Mode S (FY12-FY19), RNP RNAV (FY13-FY19), ADS-B(O) (FY14-FY19), 8.33 kHz (FY12-FY19)
E-2D RNP RNAV (FY14-FY21), ADS-B(O) (FY15-FY19)
E-6B ADS-B(O) (FY16-FY18), Mode S (FY16-FY18)
EA-18G, ADS-B(O) (FY15-FY19)
F-5 F/N ADS-B(O) (FY16-FY21)
F-16 A/B ADS-B(O) (FY16-FY20)

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
F-35 B/C Mode S (FY15-FY18), RVSM (FY15-FY20), RNP RNAV (FY18-FY21), ADS-B(O) (FY18-FY21) F/A-18A+ RVSM (FY13-FY18) F/A-18A++ RVSM (FY13-FY18) F/A-18C/D RNP RNAV (FY10-FY18), RVSM (FY13-FY19), ADS-B(O) (FY15-FY19) F/A-18E/F ADS-B(O) (FY15-FY19) K/C-130J RNP RNAV (FY16-FY19), ADS-B(O) (FY16-FY18) KC-130T ADS-B(O) (FY16-FY19) MH-53E Mode S (FY15-FY21), ADS-B(O) (FY16-FY21) MH-60R/S 8.33 kHz (FY14-FY18), RNP RNAV (FY16-FY24), ADS-B(O) (FY14-FY19) MQ-4C ADS-B(O) (FY16-FY20), RVSM (FY16-FY23), 8.33 KHz (FY16-FY20), Mode S (FY16-FY20), RNP RNAV (FY20-FY23) MQ-8B-C ADS-B(O) (FY16-FY22), Mode S (FY16-FY20), 8.33 KHz (FY16-FY19) MQ-25-A 8.33 kHz (FY17-FY22), RNP RNAV (FY17-FY22), RVSM (FY17-FY22), Mode S (FY17-FY22), ADS-B(O) (FY17-FY22) MV-22B 8.33 kHz (FY14-FY18), Mode S (FY13-FY18), RNP RNAV (FY14-FY24), ADS-B(O) (FY15-FY19) NP-3C/A Mode S (FY19-FY20, ADS-B(O) (FY19-FY20) OH-58C ADS-B(O) (FY18-FY19) P-3C/EP-3E ADS-B(O) (FY15-FY19) P-8A ADS-B(O) (FY16-FY19) T/AV-8B Mode S (FY17-FY21), RNP RNAV (FY13-FY19), ADS-B(O) (FY17-FY21) T-34C ADS-B(O) (FY17-FY20) T-38C ADS-B(O) (FY16-FY19), Mode S (FY16-FY19) T-45 RNP RNAV (FY17-FY23) UH-72A ADS-B(O) (FY17-FY19) VH-3D ADS-B(O) (FY17-FY20), Mode S (FY17-FY20) VH-60N 8.33 kHz (FY14-FY20), Mode S (FY14-FY19), ADS-B(O) (FY16-FY19)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:							
Models of Systems Affected: All A/C as directed by OPNAV			Modification Type: Common Avionics Modification					Related RDT&E PEs: 0605217N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) CNS/ATM Installation Kit (All other A/C excluding TPS platforms) - NonOrganic ⁽⁶⁾ Installation 1 of 3	381 / 28.125	73 / 2.845	75 / 1.430	74 / 0.087	- / -	74 / 0.087	- / -	- / -	- / -	- / -	- / -	603 / 32.487	
1.1.2) CNS/ATM Installation Kit (TPS) - NonOrganic Installation 2 of 3	3 / 0.004	13 / 0.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.022	
1.1.3) CNS/ATM Installation Kits (F-5 Long Lead) - NonOrganic Installation 3 of 3	- / -	41 / 0.743	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 0.743	
1.2.1) Installation Kits N/R - Organic ^(*)	- / 55.193	- / 4.530	- / 0.638	- / 0.614	- / -	- / 0.614	- / -	- / -	- / -	- / -	- / -	- / 60.975	
2.1.1) CNS/ATM Installation Equipment - Organic ^(*) (7)	2,001 / 185.478	218 / 11.568	58 / 3.031	65 / 2.353	- / -	65 / 2.353	474 / 12.453	301 / 10.920	4 / 0.115	- / -	- / -	3,121 / 225.918	
2.1.2) Archived ECPs - Organic ^(*)	713 / 2.889	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	713 / 2.889	
2.2.1) Installation Equipment N/R - Organic ^(*) (8)	33 / 344.116	- / 20.901	- / 52.740	- / 0.959	- / -	- / 0.959	- / 18.464	- / -	- / -	- / -	- / -	33 / 437.180	
Subtotal: Procurement	- / 615.805	- / 40.605	- / 57.839	- / 4.013	- / -	- / 4.013	- / 30.917	- / 10.920	- / 0.115	- / -	- / 0.000	- / 760.214	
Support													
3.1) Engineering Change Orders	- / 1.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.550	
3.2) Data ⁽⁹⁾	- / 6.179	- / -	- / 0.160	- / -	- / -	- / -	- / 0.021	- / -	- / -	- / -	- / -	- / 6.360	
3.3) Training ⁽¹⁰⁾	20 / 21.095	- / 7.169	- / 3.017	- / 4.870	- / -	- / 4.870	- / 0.650	- / -	- / -	- / -	- / -	20 / 36.801	
3.4) Support Equipment	- / 6.875	- / 0.497	- / 0.235	- / 0.039	- / -	- / 0.039	- / 0.040	- / 0.040	- / 0.041	- / 0.042	- / 0.043	- / 7.852	
3.5) ILS	- / 22.395	- / 1.892	- / 1.597	- / 0.406	- / -	- / 0.406	- / 0.246	- / 0.220	- / 0.225	- / 0.172	- / 0.156	- / 27.309	
3.6) Other Support ⁽¹¹⁾	- / 372.094	- / 39.007	- / 29.814	- / 16.151	- / -	- / 16.151	- / 15.667	- / 10.270	- / 18.222	- / 18.171	- / 4.853	- / 524.249	
Subtotal: Support	- / 430.188	- / 48.565	- / 34.823	- / 21.466	- / -	- / 21.466	- / 16.624	- / 10.530	- / 18.488	- / 18.385	- / 5.052	- / 604.121	
Installation													
Installation 1 of 3: CNS/ATM Installation Kit (All other A/C excluding TPS platforms)	- / 31.713	- / 0.070	- / 2.488	- / 0.519	- / 0.000	- / 0.519	- / 0.308	- / -	- / -	- / -	- / 0.000	- / 35.098	
Installation 2 of 3: CNS/ATM Installation Kit (TPS)	- / 0.053	- / 0.454	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.507	
Installation 3 of 3: CNS/ATM Installation Kits (F-5 Long Lead)	- / -	- / -	- / -	- / 5.681	- / 0.000	- / 5.681	- / -	- / -	- / -	- / -	- / 0.000	- / 5.681	
Subtotal: Installation	- / 31.766	- / 0.524	- / 2.488	- / 6.200	- / -	- / 6.200	- / 0.308	- / -	- / -	- / -	- / 0.000	- / 41.286	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0577 / Common Avionics Changes						Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: All A/C as directed by OPNAV			Modification Type: Common Avionics Modification					Related RDT&E PEs: 0605217N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	1,077.759	89.694	95.150	31.679	0.000	31.679	47.849	21.450	18.603	18.385	5.052	1,405.621	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: CNS/ATM Installation Kit (All other A/C excluding TPS platforms)																															
Manufacturer Information																															
Manufacturer Name: Various ⁽¹²⁾															Manufacturer Location: Various																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020																					
Delivery Dates		Dec 2018				Dec 2019				Dec 2020																					
Installation Information																															
Method of Implementation: All A/C except NU-1B, O-2A, OH-58A, U-6A, UH-72A,UV-18A:: Installation Name: CNS/ATM Installation Ki																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		297 / 31.713		84 / 0.070		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		381 / 31.783					
FY 2018		- / -		- / -		73 / 2.488		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		73 / 2.488					
FY 2019		- / -		- / -		- / -		75 / 0.519		0 / 0.000		75 / 0.519		- / -		- / -		- / -		- / -		- / -		0 / 0.000		75 / 0.519					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		74 / 0.308		- / -		- / -		- / -		- / -		0 / 0.000		74 / 0.308					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		297 / 31.713		84 / 0.070		73 / 2.488		75 / 0.519		0 / 0.000		75 / 0.519		74 / 0.308		- / -		- / -		- / -		- / -		0 / 0.000		603 / 35.098					
Installation Schedule																															
		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
	PYS	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	297	21	21	21	21	19	18	18	18	19	19	19	18	19	19	18	18	-	-	-	-	-	-	-	-	-	-	-	-	-	603
Out	297	21	21	21	21	19	18	18	18	19	19	19	18	19	19	18	18	-	-	-	-	-	-	-	-	-	-	-	-	-	603

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: CNS/ATM Installation Kit (TPS)																															
Manufacturer Information																															
Manufacturer Name: Various ⁽¹³⁾															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017																													
Delivery Dates		Feb 2018																													
Installation Information																															
Method of Implementation: NU-1B, O-2A, OH-58A, U-6A, UH-72A,UV-18A. F-5,F-16:: Installation Name: CNS/ATM Installation Kit (TP																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 / 0.053	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	3 / 0.053																	
FY 2018		- / -	13 / 0.454	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	13 / 0.454																	
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
Total		3 / 0.053	13 / 0.454	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	16 / 0.507																	
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	5	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	3	-	5	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Installation 3 of 3: CNS/ATM Installation Kits (F-5 Long Lead)

Manufacturer Information

Manufacturer Name: TBD ⁽¹⁴⁾				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 9				Production Leadtime (in Months): 19			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates	Jun 2018						
Delivery Dates	Jan 2020						

Installation Information

Method of Implementation: TBD:: Installation Name: CNS/ATM Installation Kits (F-5 Long Lead)

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	41 / 5.681	0 / 0.000	41 / 5.681	- / -	- / -	- / -	- / -	0 / 0.000	41 / 5.681
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	41 / 5.681	0 / 0.000	41 / 5.681	- / -	- / -	- / -	- / -	0 / 0.000	41 / 5.681

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41
Out	-	-	-	-	-	-	-	-	-	-	14	14	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41

Footnotes:

⁽⁶⁾ FY19-FY20: Installation Kit Recurring cost per quantity variation is due to variation in multiple Type/Model/Series (T/M/S) aircraft, platform quantities, associated equipment per platform, and cost per equipment. The B-Kit quantities differ from A-Kits where B-Kits consist of a card or module that will be integrated without A-Kit requirement. Installation Kit/Installation Equipment quantities reflect number of

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 2 / Communication - Navigation - Surveillance / Air Traffic Management (CNS/ATM) Systems (OSIP 21-01)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
units procured, installation quantity reflects number of aircraft. Certifications are based on a separate certification analysis to confirm system performance, and do not necessarily reflect integration. Production Lead Time is acceptable and does not impact induction of aircraft due to length of aircraft modification. (7) FY19-FY24: Installation Equipment Recurring cost per quantity variation is due to variation in multiple Type/Model/Series (T/M/S) aircraft, platform quantities, associated equipment per platform, and cost per equipment. The increase of B-Kits in FY21 is for the addition of MH-60 R/S Required Navigational Performance Area Navigation (RNP RNAV) Software Licenses. (8) FY19-FY21: The Installation Equipment Non-Recurring growth is due to the addition of T-45, MH-60 and MV-22 platforms to achieve RNP RNAV. (9) FY19-FY21: Data effort is funded at the completion of integration efforts. (10) FY19-FY20: Training Equipment costs increased for MV-22 trainer in support of RNP RNAV. (11) FY22-FY23: Other Support Cost Category 3.6 increased test support for MH-60 and MV-22 platforms to achieve RNP RNAV certifications and ADS-B (Out) compliance verifications. (12) FY18 (12) Installs for MH-60 were funded with FY17. (13) FY18: Two Validation/Verification Kits for F-5 are being procured and installed in the same year. Vendor provided two long lead items for the Validation/Verification installs in FY18. (14) FY18-FY20: F-5 Long Lead Items for A-Kits and B-Kits require 19 month production lead time. Procurement of A-Kits and B-Kits in FY18 and installs in FY20.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	30.214	5.124	5.000	5.100	0.000	5.100	5.202	5.301	5.407	5.510	136.045	202.903
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	30.214	5.124	5.000	5.100	0.000	5.100	5.202	5.301	5.407	5.510	136.045	202.903
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	30.214	5.124	5.000	5.100	0.000	5.100	5.202	5.301	5.407	5.510	136.045	202.903
<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: Avionics Component Improvement Program (AvCIP) provides resources to address critical readiness, reliability deficiencies, obsolescence, loss of sustainability, and top fleet repair cost drivers in naval avionics systems. In the year prior to execution, candidate projects from all Type/Model/Series and aviation electronics support components are collected, reviewed, competed and selected based upon proposal solution maturity, ability to execute, mission criticality and urgency, degree of readiness, impact on Fleet maintenance or repair cost burden, return on investment, and Fleet advocacy. AvCIP was established under the OSD Business Initiative Council as a better business practice to address cost-wise readiness in support of Naval Aviation Enterprise (NAE) efficiency objectives. AvCIP also supports the NAE strategic imperative of increasing speed of product to the fleet. AvCIP is funded with Aircraft Procurement, Navy (APN) account to cover Non-Recurring Engineering (NRE) for modifications, integration testing, lab assets, qualification testing, engineering and logistics documentation and support services. APN funds can insert modern technology while addressing poor performance or obsolescence (that threatens to down aircraft), and support project modification component procurements, as required. Follow-on procurements tails, if required, will be coordinated with Program Offices and their Operational, Safety and Improvement Programs (OSIPs). Candidate projects are submitted via a rigorous template and reviewed by a panel of Avionics professionals. Analysis shows that funding applied under this program has consistently enabled life cycle sustainment and procurement cost avoidances exceeding a five to one margin. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: AvCIP project selection criteria focus on proposed solution maturity and executability in which the timeframe for target projects to start fielding the solutions is 12-18 months. Units may be transferred to Fleet platforms as operational assets. Future year specific development profiles/milestones will be dependent upon projects competed and selected. Procurements below are representative of initial project lab asset purchases for qualification and production validation.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: All Aircraft as directed by OPNAV					Modification Type: Common Avionics Modification				Related RDT&E PEs: 0605217N				
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Avionics Component Improvement Program (AvCIP) (OSIP 11-09)													
B Kits													
Recurring													
1.1.1) AvCIP Installation Equipment - NonOrganic ⁽¹⁵⁾	22 / 10.478	- / -	12 / 2.098	12 / 2.198	- / -	12 / 2.198	12 / 2.212	12 / 2.232	12 / 2.281	12 / 2.311	152 / 46.796	246 / 70.606	
Subtotal: Recurring	- / 10.478	- / -	- / 2.098	- / 2.198	- / -	- / 2.198	- / 2.212	- / 2.232	- / 2.281	- / 2.311	- / 46.796	- / 70.606	
Non-Recurring													
1.2.1) B-Kit/Non-Recurring - Organic ⁽¹⁶⁾	- / 10.486	- / 4.422	- / 2.352	- / 1.752	- / -	- / 1.752	- / 1.762	- / 1.770	- / 1.797	- / 1.833	- / 64.449	- / 90.623	
Subtotal: Non-Recurring	- / 10.486	- / 4.422	- / 2.352	- / 1.752	- / -	- / 1.752	- / 1.762	- / 1.770	- / 1.797	- / 1.833	- / 64.449	- / 90.623	
Subtotal: Avionics Component Improvement Program (AvCIP) (OSIP 11-09)	22 / 20.964	- / 4.422	12 / 4.450	12 / 3.950	- / -	12 / 3.950	12 / 3.974	12 / 4.002	12 / 4.078	12 / 4.144	152 / 111.245	246 / 161.229	
Subtotal: Procurement, All Modification Items	- / 20.964	- / 4.422	- / 4.450	- / 3.950	- / -	- / 3.950	- / 3.974	- / 4.002	- / 4.078	- / 4.144	- / 111.245	- / 161.229	
Support (All Modification Items)													
2.3) ILS	- / 0.496	- / 0.150	- / 0.100	- / 0.100	- / -	- / 0.100	- / 0.106	- / 0.111	- / 0.116	- / 0.118	- / 5.223	- / 6.520	
2.5) Support Equipment	- / 0.158	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.158	
2.6) Other Support	- / 8.596	- / 0.552	- / 0.450	- / 0.450	- / -	- / 0.450	- / 0.463	- / 0.483	- / 0.498	- / 0.510	- / 13.098	- / 25.100	
Subtotal: Support	- / 9.250	- / 0.702	- / 0.550	- / 0.550	- / -	- / 0.550	- / 0.569	- / 0.594	- / 0.614	- / 0.628	- / 18.321	- / 31.778	
Installation													
Modification Item 1 of 1: Avionics Component Improvement Program (AvCIP) (OSIP 11-09)	- / 0.000	- / 0.000	- / 0.000	- / 0.600	- / 0.000	- / 0.600	- / 0.659	- / 0.705	- / 0.715	- / 0.738	- / 6.479	- / 9.896	
Subtotal: Installation	- / 0.000	- / -	- / -	- / 0.600	- / -	- / 0.600	- / 0.659	- / 0.705	- / 0.715	- / 0.738	- / 6.479	- / 9.896	
Total													
Total Cost (Procurement + Support + Installation)	30.214	5.124	5.000	5.100	0.000	5.100	5.202	5.301	5.407	5.510	136.045	202.903	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Avionics Component Improvement Program (AvCIP) (OSIP 11-09)																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 15																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023					
Delivery Dates						Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024				Feb 2025					
Installation Information																															
Method of Implementation: Equipment is provided to Platform PMA and installed as per airframe ECP/AFC:: Installation Name: AvC																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete	Total									
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 / 0.000		- / -								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		12 / 0.600		0 / 0.000		12 / 0.600		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.600								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		12 / 0.659		- / -		- / -		- / -		0 / 0.000		12 / 0.659								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.705		- / -		- / -		0 / 0.000		12 / 0.705								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.715		- / -		0 / 0.000		12 / 0.715								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.738		0 / 0.000								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.753		12 / 0.753								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		152 / 5.726		152 / 5.726								
Total		- / -	- / -		- / -		12 / 0.600		0 / 0.000		12 / 0.600		12 / 0.659		12 / 0.705		12 / 0.715		12 / 0.738		164 / 6.479		224 / 9.896								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	-	4	4	4	-	4	4	4	-	4	4	4	-	4	4	4		
Out	-	-	-	-	-	-	-	-	-	-	4	4	4	-	4	4	4	-	4	4	4	-	4	4	4	-	4	4	4		
Footnotes:																															
⁽¹⁵⁾ No A-Kit Procurement associated with the B-Kit Procurement. Prior Year B-Kit Procurement, quantity of (22), no installs required. B-Kits and Installs are estimated based on engineering projections. Actual components to be determined during project selection in the year prior to execution, as outlined in project description/justification on P-3a. Install costs variations are due to variations in kit procurements for multiple aircraft, platform quantities, and associated equipment per platform.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 3 / Avionics Component Improvement Program (AvCIP) (OSIP 11-09)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽¹⁶⁾ B-Kit/equipment modification funding is as follows: All T/M/S modifications and Common Avionics Systems.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 4 / Secure Communications (OSIP 10-19)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	9.858	24.647	0.000	24.647	22.177	35.532	40.359	42.545	19.781	194.899
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	9.858	24.647	0.000	24.647	22.177	35.532	40.359	42.545	19.781	194.899
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	9.858	24.647	0.000	24.647	22.177	35.532	40.359	42.545	19.781	194.899
(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 Secure Communication Avionics Modernization Program provides secure Ultra High Frequency (UHF)/Very High Frequency (VHF) Amplitude Modulation/Frequency Modulation (AM/FM) Anti-Jam radio systems for Line of Sight (LOS) and Beyond Line of Sight (BLOS) Satellite Communication (SATCOM) voice and data communications including modernized cryptographic capabilities and anti-jam waveforms. The program provides for continued secure communications beyond current National Security Agency (NSA) mandated cryptographic (CRYTPO) Cease Key Dates and overcomes analog HAVEQUICK vulnerabilities with required robust digital encryption/frequency hopping capability. Enables secure LOS and BLOS communications with increased access, significantly increased global coverage, higher bandwidth and Internet Protocol (IP) connectivity. Secure Communications mitigates BLOS and Anti-Jam waveform obsolescence with the additions of the Mobile Users Objective System (MUOS) and Second Generation Anti-Jam Tactical UHF Radio for North Atlantic Treaty Organization (NATO) (SATURN) waveforms.

Development Status/Major Development Milestones: Full Rate Production approved on 16 May 2011. FY19: Installation Equipment procurement of 5 kits are Validation Verification Kits and are First Production installs and will remain on the aircraft. FY19: The Installation Equipment Non-Recurring is the integration for the procurement buys in FY20 for various Type/Model/Series (T/M/S) aircraft. FY20-24: The Installation Equipment Non-Recurring is the integration for the procurement buys in FY21-To Complete for various T/M/S aircraft and to implement the S/W modifications to mission computers to incorporate Anti-Jam Waveforms, Mobile Users Objective System and Crypto Modernization. Installation Kit Recurring cost per quantity variation is due to variation in multiple T/M/S aircraft, platform quantities, associated equipment per platform, and cost per equipment. All other aircraft, no A-Kit Procurement or Installs associated with B-Kit Procurement.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes						Modification Number / Title: 4 / Secure Communications (OSIP 10-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: All platforms as directed by OPNAV.				Modification Type: Common Avionics (Modernization)				Related RDT&E PEs: 0605217N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Secure Communications (OSIP 10-19)													
A Kits													
Recurring													
1.1.1) Secure Communications Installation Kits - NonOrganic ⁽¹⁷⁾	- / -	- / -	- / -	9 / 0.459	- / -	9 / 0.459	18 / 0.936	51 / 2.903	104 / 7.665	101 / 8.067	30 / 0.696	313 / 20.726	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 0.459	- / -	- / 0.459	- / 0.936	- / 2.903	- / 7.665	- / 8.067	- / 0.696	- / 20.726	
B Kits													
Recurring													
2.1.1) Secure Communications Installation Equipment - Organic ⁽¹⁸⁾	- / -	- / -	5 / 1.002	29 / 4.000	- / -	29 / 4.000	66 / 5.817	149 / 20.110	104 / 26.752	101 / 29.183	30 / 14.243	484 / 101.107	
Subtotal: Recurring	- / 0.000	- / -	- / 1.002	- / 4.000	- / -	- / 4.000	- / 5.817	- / 20.110	- / 26.752	- / 29.183	- / 14.243	- / 101.107	
Non-Recurring													
2.2.1) Installation Equipment Non-Recurring - Organic ⁽¹⁹⁾	- / -	- / -	- / 7.808	- / 18.952	- / -	- / 18.952	- / 14.186	- / 11.119	- / 3.634	- / 1.846	- / -	- / 57.545	
Subtotal: Non-Recurring	- / 0.000	- / -	- / 7.808	- / 18.952	- / -	- / 18.952	- / 14.186	- / 11.119	- / 3.634	- / 1.846	- / 0.000	- / 57.545	
Subtotal: Secure Communications (OSIP 10-19)	- / -	- / -	5 / 8.810	38 / 23.411	- / -	38 / 23.411	84 / 20.939	200 / 34.132	208 / 38.051	202 / 39.096	60 / 14.939	797 / 179.378	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / 8.810	- / 23.411	- / -	- / 23.411	- / 20.939	- / 34.132	- / 38.051	- / 39.096	- / 14.939	- / 179.378	
Support (All Modification Items)													
3.5) ILS	- / -	- / -	- / -	- / 0.206	- / -	- / 0.206	- / 0.212	- / 0.219	- / 0.225	- / 0.240	- / -	- / 1.102	
3.6) Other Support ⁽²⁰⁾	- / -	- / -	- / 1.048	- / 1.030	- / -	- / 1.030	- / 0.886	- / 0.895	- / 0.906	- / 1.113	- / -	- / 5.878	
Subtotal: Support	- / 0.000	- / -	- / 1.048	- / 1.236	- / -	- / 1.236	- / 1.098	- / 1.114	- / 1.131	- / 1.353	- / 0.000	- / 6.980	
Installation													
Modification Item 1 of 1: Secure Communications (OSIP 10-19)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.140	- / 0.286	- / 1.177	- / 2.096	- / 4.842	- / 8.541	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.140	- / 0.286	- / 1.177	- / 2.096	- / 4.842	- / 8.541	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	9.858	24.647	0.000	24.647	22.177	35.532	40.359	42.545	19.781	194.899	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 4 / Secure Communications (OSIP 10-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Secure Communications (OSIP 10-19)																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Dec 2020				Dec 2021				Dec 2022				Dec 2023				Dec 2024					
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: Secure Communications Installation Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 0.140		- / -		- / -		- / -		0 / 0.000		9 / 0.140					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		18 / 0.286		- / -		- / -		0 / 0.000		18 / 0.286					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		51 / 1.177		- / -		0 / 0.000		51 / 1.177					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		104 / 2.096		0 / 0.000		104 / 2.096					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		101 / 3.732		101 / 3.732					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		30 / 1.110		30 / 1.110					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 0.140		18 / 0.286		51 / 1.177		104 / 2.096		131 / 4.842		313 / 8.541					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	5	4	4	13	13	13	12	26	26	26	26	131	313
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	2	5	5	4	4	13	13	13	12	26	26	26	26	131	313
Method of Implementation (Organic): Secure Communications Installation Equipment - Not Installed																															
																				Installation Quantity: 484											
Footnotes:																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 4 / Secure Communications (OSIP 10-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽¹⁷⁾ FY20-24: A-Kit Procurement and Installs increase is associated with Crypto Modernization and Mobile Users Objective System (MUOS) for C-40A, E-2D, KC-130J, MV/CMV-22B, and UC-35. All other aircraft, no A-Kit Procurement or Installs associated with B-Kit Procurement. Installation Kit Recurring cost per quantity variation is due to variation in multiple Type/Model/Series (T/M/S) aircraft, platform quantities, associated equipment per platform, and cost per equipment. ⁽¹⁸⁾ FY20-FY24: B-Kit Procurement increase is associated with the Crypto Modernization and MUOS for C-40A, E-2D, KC-130J, MV/CMV-22B, and UC-35. Installation Equipment Recurring cost per quantity variation is due to variation in multiple Type/Model/Series (T/M/S) aircraft, platform quantities, associated equipment per platform, and cost per equipment. All other aircraft, no A-Kit Procurement or Installs associated with B-Kit Procurement. ⁽¹⁹⁾ FY20-24: The Installation Equipment Non-Recurring is the integration for the procurement buys in FY21-To Complete for various T/M/S aircraft and to implement the S/W modifications to mission computers to incorporate Anti-Jam Waveforms, MUOS and Crypto Modernization. Installation Equipment Recurring cost per quantity variation is due to variation in multiple Type/Model/Series (T/M/S) aircraft, platform quantities, associated equipment per platform, and cost per equipment. All other aircraft, no A-Kit Procurement or Installs associated with B-Kit Procurement. ⁽²⁰⁾ FY20-FY24: The Other Support cost growth is associated with the procurement of A-Kits for the C-40A, E-2D, KC-130J, MV/CMV-22B, and UC-35 in support of the Crypto Modernization and MUOS.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 5 / Common Mission Computing and Displays (CMCD) (OSIP 06-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	32.563	0.000	32.563	25.340	25.262	23.582	20.000	24.102	150.849
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	32.563	0.000	32.563	25.340	25.262	23.582	20.000	24.102	150.849
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	32.563	0.000	32.563	25.340	25.262	23.582	20.000	24.102	150.849
<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: Common Mission Computing and Displays (CMCD) modifies unsustainable mission computers, mission processing capacity and display solutions; while providing improved capacity to meet expanding mission and data transfer requirements, and reducing time and minimizing investment cost required to manage obsolescence and integrate new capabilities. This government owned Open Architecture (OA) family of systems for multi-platform applications will be tailored and configured as an enabler to implement current and future capabilities through the Government's organic Multi-Use Laboratory Environment (MULE). MULE will conduct these activities over the equipment's life cycle while reducing dependency on aircraft manufacturers during technology refreshes and capability insertions. CMCD will contain Commercial Off the Shelf (COTS) modules that will be integrated with Government owned Core Level Software (CLS) through an organically managed program. This OSIP will centrally manage the fielded systems across multiple platforms to create efficiencies and cost saving to the Naval Aviation Enterprise. Note: CMCD (OSIP 06-20) is not a new start. This OSIP leverages previous efforts to produce, test and certify a common mission computing product. These additional costs cover modification of the baseline framework to re-host the T-45C legacy Operational Flight Plan (OFP), partition separable OA environments, implement a common open software application for Required Navigation Performance Required Navigation (RNP/RNAV), and field the retrofits. This OSIP will be used to integrate programmed and planned requirements on multiple T/M/S aircraft through modification of legacy saturated computing and obsolete display solutions. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Test Readiness Review is scheduled for April 2019 and Environmental Qualification testing is scheduled to begin in May 2019. A Production Readiness Review will be scheduled between the first and second quarter of FY 2020.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 5 / Common Mission Computing and Displays (CMCD) (OSIP 06-20)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: All platforms as directed by OPNAV.					Modification Type: Common Avionics (Modernization)					Related RDT&E PEs: 0605217N			
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> Common Mission Computing and Displays (CMCD) (OSIP 06-20)													
B Kits													
Recurring													
2.1.1) CMCD Intallation Equipment - Organic ⁽²¹⁾	- / -	- / -	- / -	39 / 10.146	- / -	39 / 10.146	39 / 10.564	39 / 10.723	39 / 10.961	41 / 11.569	- / -	197 / 53.963	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 10.146	- / -	- / 10.146	- / 10.564	- / 10.723	- / 10.961	- / 11.569	- / 0.000	- / 53.963	
Non-Recurring													
2.2.1) Installation Equipment Non-Recurring - Organic ⁽²²⁾	- / -	- / -	- / -	- / 14.430	- / -	- / 14.430	- / 6.902	- / 6.405	- / 4.360	- / 1.152	- / -	- / 33.249	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / 14.430	- / -	- / 14.430	- / 6.902	- / 6.405	- / 4.360	- / 1.152	- / 0.000	- / 33.249	
<i>Subtotal: Common Mission Computing and Displays (CMCD) (OSIP 06-20)</i>	- / -	- / -	- / -	39 / 24.576	- / -	39 / 24.576	39 / 17.466	39 / 17.128	39 / 15.321	41 / 12.721	- / -	197 / 87.212	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 24.576	- / -	- / 24.576	- / 17.466	- / 17.128	- / 15.321	- / 12.721	- / 0.000	- / 87.212	
Support (All Modification Items)													
3.5) ILS	- / -	- / -	- / -	- / 0.451	- / -	- / 0.451	- / 0.455	- / 0.459	- / 0.463	- / 0.467	- / 1.055	- / 3.350	
3.6) Other Support ⁽²³⁾	- / -	- / -	- / -	- / 17.536	- / -	- / 17.536	- / 17.419	- / 17.675	- / 17.798	- / 6.812	- / 23.047	- / 60.287	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 17.987	- / -	- / 17.987	- / 17.874	- / 8.134	- / 8.261	- / 7.279	- / 24.102	- / 63.637	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	32.563	0.000	32.563	25.340	25.262	23.582	20.000	24.102	150.849	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 5 / Common Mission Computing and Displays (CMCD) (OSIP 06-20)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Common Mission Computing and Displays (CMCD) (OSIP 06-20)		
Footnotes: (21) No A-Kit Procurement or Installs associated with B-Kit Procurement. (22) Installation Equipment Non-Recurring is ongoing to implement the software modifications to Mission Computers for various T/M/S aircraft to incorporate Open Architecture. (23) FY20-24: Other Support Costs are associated with engineering for B-Kit Procurement, Integration and the Government's organic Multi-Use Laboratory Environment (MULE). MULE supports capability insertions, technology refresh and incorporation of materials and products for lab testing.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0577 / Common Avionics Changes					Modification Number / Title: 6 / Global Positioning System (GPS) Modernization (OSIP 02-22)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	0.000	9.952	30.368	34.440	143.427	218.187
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	9.952	30.368	34.440	143.427	218.187
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	0.000	9.952	30.368	34.440	143.427	218.187
<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: DESCRIPTION: Global Positioning System (GPS) Modernization funds the Navy's integration of Military Code (M-Code) GPS receivers that are being developed by the Air Force Material Command's Joint Services System Management Office (JSSMO) Embedded GPS Inertial M-Code (EGI-M) and the Miniaturized Advanced GPS Receiver 2000 with M-Code (MAGR2K-M) programs into Naval Air platforms. Integration of these receivers address emerging threats to GPS by providing access to the new GPS M-Code signal. This effort supports Navy's compliance with Public Law 111-383, which requires that all GPS user equipment be capable of receiving the new GPS M-Code signal after FY 2017. Funding for receiver procurement starts in FY22 due to delivery lead time and supports the fielding of EGI-M in to F/A-18E/F and EA-18G and MAGR2K-M into MV-22B, CMV-22B, and F/A-18E/F starting in FY23. Receivers will be procured through existing Joint Services System Management Office (JSSMO) contracts and integrated on Navy platforms through the platform Program of Record (POR). Research, Development, Test and evaluation, Navy for this effort is funded under program element #0604777N. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: PEO C4I approved Project Definition Document (PDD) 9 November 2016, F/A-18E/F and EA-18G GPS Modernization Risk Reduction task award to Boeing December 2016, GPS Modernization Development and Integration contract award to F/A-18E/F and EA-18G prime vendor (Boeing) January 2018, and Development and Integration contract award to MV-22B and CMV-22B prime vendor (Bell Boeing) expected in December 2018. Operational Evaluation planned for second and third quarter FY21 for MV-22B and CMV-22B and first and second quarter FY23 for F/A-18E/F and EA-18G.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes				Modification Number / Title: 6 / Global Positioning System (GPS) Modernization (OSIP 02-22)					
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: All Aircraft as directed by OPNAV				Modification Type: Common Avionics (Modernization)				Related RDT&E PEs: 0604777N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Global Positioning System (GPS) Modernization (OSIP 02-22)													
B Kits													
Recurring													
2.1.1) GPS Modernization Installation Equipment (MAGR2K-M/EGI-M) - NonOrganic ⁽²⁴⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	76 / 7.491	184 / 22.767	180 / 23.922	591 / 109.588	1,031 / 163.768	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.491	- / 22.767	- / 23.922	- / 109.588	- / 163.768	
<i>Subtotal: Global Positioning System (GPS) Modernization (OSIP 02-22)</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	76 / 7.491	184 / 22.767	180 / 23.922	591 / 109.588	1,031 / 163.768	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.491	- / 22.767	- / 23.922	- / 109.588	- / 163.768	
Support (All Modification Items)													
3.5) ILS ⁽²⁵⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.555	- / 0.566	- / 0.578	- / 2.780	- / 4.479	
3.6) Other Support ⁽²⁶⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.906	- / 6.575	- / 8.800	- / 25.915	- / 43.196	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.461	- / 7.141	- / 9.378	- / 28.695	- / 47.675	
Installation													
Modification Item 1 of 1: Global Positioning System (GPS) Modernization (OSIP 02-22)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.460	- / 1.140	- / 5.144	- / 6.744	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.460	- / 1.140	- / 5.144	- / 6.744	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.952	30.368	34.440	143.427	218.187	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0577 / Common Avionics Changes										Modification Number / Title: 6 / Global Positioning System (GPS) Modernization (OSIP 02-22)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Global Positioning System (GPS) Modernization (OSIP 02-22)																															
Manufacturer Information																															
Manufacturer Name: Various															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 11																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jan 2022				Jan 2023				Jan 2024									
Delivery Dates														Dec 2022				Dec 2023				Dec 2024									
Installation Information																															
Method of Implementation: [none specified]:: Installation Name: GPS Modernization Installation Equipment (MAGR2K-M/EGI-M)																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	76 / 0.460	- / -	0 / 0.000	76 / 0.460																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	184 / 1.140	0 / 0.000	184 / 1.140																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	180 / 1.201	180 / 1.201																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	591 / 3.943	591 / 3.943																		
Total		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	76 / 0.460	184 / 1.140	771 / 5.144	1,031 / 6.744																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	19	46	46	46	46	771	1,031
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	19	19	19	46	46	46	46	771	1,031
Footnotes: ⁽²⁴⁾ No A-Kit Procurement associated with the B-Kit Procurement. FY22: Installation Equipment Validation Verification B-Kits are First Production Installs and will remain on the aircraft. FY22-FY24: The Installation Equipment Recurring cost and quantity increase is due to scheduled Validation/Verification in FY22 and Full Rate Production in FY23 and the addition of MV/CMV-22 B-Kit quantities for Military Code (M-Code.)																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0577 / Common Avionics Changes	Modification Number / Title: 6 / Global Positioning System (GPS) Modernization (OSIP 02-22)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(25) FY22-FY24: Integrated Logistics Support cost increase is due to scheduled Validation/Verification in FY22 and Full Rate Production in FY23 and the addition of MV/CMV-22 B-Kit quantities for M-Code. (26) FY22-FY24: Other Support cost increase is due to scheduled Validation/Verification in FY22 and Full Rate Production in FY23 and the addition of MV/CMV-22 B-Kit quantities for M-Code.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes						Modification Number / Title: 7 / Inactive OSIPs		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,103.435	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,103.435
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,103.435	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,103.435
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,103.435	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,103.435
<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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0577 / Common Avionics Changes						Modification Number / Title: 7 / Inactive OSIPs			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
Procurement													
1.1.2) Inactive OSIPs - Organic ^(*)	- / 1,103.435	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1,103.435
<i>Subtotal: Procurement</i>	<i>- / 1,103.435</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 1,103.435</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	1,103.435	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,103.435	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0581 / Common Defensive Weapon 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	81.942	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	-	117.429
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	81.942	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	-	117.429
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	81.942	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	-	117.429
<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 Common Defensive Weapon System (CDWS) consists of a GAU-21 .50 caliber Machine Gun, cradle, ammo box, feed/link chutes and a platform specific mount system. For the MV-22 CDWS, which is in production, Ramp Mount Weapon Systems (RMWS) will be procured. CDWS was procured to replace obsolete GAU-16 and XM-218 .50 caliber Machine Guns. CDWS enhances the warfighters overall capability by providing a safer, more reliable and accurate weapon system with a higher rate of fire. For the CH-53K, which is in production, procurement of the Ramp, Door and Window mounted CDWS may be procured. Funding also supports the modification of medium caliber gun systems used on Navy/Marine Aircraft as well as modifications to crew served weapons including the 7.62mm and .50 cal machine guns currently used on Navy/Marine Helicopters. The modifications to Crew Serve Weapon Systems will increase safety and reliability.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0581 / Common Defensive Weapon 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

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06) (MISSION/MISSION ENHANCEMENT)				- / 72.306	- / 2.317	- / 5.200	- / 2.100	- / 3.274	- / 5.374
P-3a	2 / INACTIVE OSIP/DAWDF Realignment (TBD)				- / 9.636	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 81.942	- / 2.317	- / 5.200	- / 2.100	- / 3.274	- / 5.374

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06) (MISSION/MISSION ENHANCEMENT)				- / 5.483	- / 5.592	- / 5.704	- / 5.817	- / 0.000	- / 107.793
P-3a	2 / INACTIVE OSIP/DAWDF Realignment (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 9.636
P-40	Total Gross/Weapon System Cost				- / 5.483	- / 5.592	- / 5.704	- / 5.817	- / -	- / 117.429

*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 2020 baseline funding will procure 22 modified Ramp Mount Weapon System for the MV-22 aircraft and associated support.

OCO:

FY 2020 OCO funding will procure 94 GAU-21 machine guns, 108 M240 machine guns and associated support. This procurement is necessary to reset the force and replace weapons whose service life was expended in support of combat operations.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0581 / Common Defensive Weapon System					Modification Number / Title: 1 / COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	72.306	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	0.000	107.793
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	72.306	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	0.000	107.793
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	72.306	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	0.000	107.793
<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: DESCRIPTION/JUSTIFICATION: The Common Defensive Weapon System (CDWS) consists of a GAU-21 .50 caliber Machine Gun, cradle, ammo box, feed/link chutes and a platform specific mount system. For the MV-22 CDWS, which is in production, Ramp Mount Weapon Systems (RMWS) will be procured. CDWS was procured to replace obsolete GAU-16 and XM-218 .50 caliber Machine Guns. CDWS enhances the warfighters overall capability by providing a safer, more reliable and accurate weapon system with a higher rate of fire.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0581 / Common Defensive Weapon System					Modification Number / Title: 1 / COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CH-53D/E, UH-1Y, MV-22				Modification Type: MISSION/MISSION ENHANCEMENT				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1:</i> COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)													
A Kits													
Recurring													
1.1.1) MV-22 - Organic ⁽¹⁾	234 / 14.480	26 / 1.899	22 / 1.569	22 / 1.600	- / -	22 / 1.600	18 / 1.336	18 / 1.362	18 / 1.390	5 / 0.394	- / -	363 / 24.030	
1.1.2) GAU-21 - Organic	- / -	- / -	93 / 2.209	- / 0.000	94 / 2.277	94 / 2.277	102 / 2.521	102 / 2.571	102 / 2.622	129 / 3.383	- / -	622 / 15.583	
1.1.3) M240 - Organic	- / -	- / -	102 / 0.832	- / 0.000	108 / 0.899	108 / 0.899	120 / 1.018	121 / 1.047	122 / 1.077	156 / 1.405	- / -	729 / 6.278	
1.1.4) Archived Mods - Organic	752 / 43.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	752 / 43.200	
<i>Subtotal: Recurring</i>	<i>- / 57.680</i>	<i>- / 1.899</i>	<i>- / 4.610</i>	<i>- / 1.600</i>	<i>- / 3.176</i>	<i>- / 4.776</i>	<i>- / 4.875</i>	<i>- / 4.980</i>	<i>- / 5.089</i>	<i>- / 5.182</i>	<i>- / 0.000</i>	<i>- / 89.091</i>	
B Kits													
Recurring													
2.1.1) Archived B Kits - Organic	415 / 6.659	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	415 / 6.659	
<i>Subtotal: Recurring</i>	<i>- / 6.659</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.000</i>	<i>- / 6.659</i>	
<i>Subtotal: COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)</i>	<i>1,401 / 64.339</i>	<i>26 / 1.899</i>	<i>217 / 4.610</i>	<i>22 / 1.600</i>	<i>202 / 3.176</i>	<i>224 / 4.776</i>	<i>240 / 4.875</i>	<i>241 / 4.980</i>	<i>242 / 5.089</i>	<i>290 / 5.182</i>	<i>- / -</i>	<i>2,881 / 95.750</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 64.339</i>	<i>- / 1.899</i>	<i>- / 4.610</i>	<i>- / 1.600</i>	<i>- / 3.176</i>	<i>- / 4.776</i>	<i>- / 4.875</i>	<i>- / 4.980</i>	<i>- / 5.089</i>	<i>- / 5.182</i>	<i>- / 0.000</i>	<i>- / 95.750</i>	
Support (All Modification Items)													
3.1) Data	- / 0.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400	
3.2) Support Equipment	- / 1.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.700	
3.3) ILS	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000	
3.4) Other Support	- / 3.867	- / 0.418	- / 0.590	- / 0.500	- / 0.098	- / 0.598	- / 0.608	- / 0.612	- / 0.615	- / 0.635	- / -	- / 7.943	
<i>Subtotal: Support</i>	<i>- / 7.967</i>	<i>- / 0.418</i>	<i>- / 0.590</i>	<i>- / 0.500</i>	<i>- / 0.098</i>	<i>- / 0.598</i>	<i>- / 0.608</i>	<i>- / 0.612</i>	<i>- / 0.615</i>	<i>- / 0.635</i>	<i>- / 0.000</i>	<i>- / 12.043</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	72.306	2.317	5.200	2.100	3.274	5.374	5.483	5.592	5.704	5.817	0.000	107.793	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0581 / Common Defensive Weapon System	Modification Number / Title: 1 / COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: COMMON DEFENSE WEAPON SYSTEM (OSIP 003-06)		
Footnotes: ⁽¹⁾ Unit cost projections for MV-22 can fluctuate based on other DoD and FMS customers procurement requirements. The total contracted quantity may result in a slightly lower or higher projected unit cost for MV-22 CDWS hardware.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0581 / Common Defensive Weapon System					Modification Number / Title: 2 / INACTIVE OSIP/DAWDF Realignment			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	9.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.636
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	9.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.636
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	9.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.636
(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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0581 / Common Defensive Weapon System					Modification Number / Title: 2 / INACTIVE OSIP/DAWDF Realignment				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Inactive OSIP/DAWDF Realignment - Organic ^(*)	- / 9.636	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.636	
Subtotal: Procurement	- / 9.636	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 9.636	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	9.636	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.636	

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0582 / ID Sys

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	-	511.395
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	-	511.395
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	-	511.395
<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:

MARK (MK) XIIA Mode 5 provides improved secure cooperative combat identification via the Identification Friend or Foe (IFF) system. Mode 5 compatibility is part of the Combat Identification Family of Systems strategy employed by US and North Atlantic Treaty Organization/Allied forces and will improve situational awareness, reduce fratricide, reduce enemy disruption of IFF functions and ensure the safe return of friendly aircraft. The DoD implementation is governed by AIMS 03-1000A, AIMS 03-1000B and USN requirements defined in ORD # 577-06-01 and is designed to be compatible with civilian IFF modes to ensure interoperability of military and civilian aircraft. Mode 5 is a product improvement which is designed to be installed through engineering changes to digital MARK XII IFF Systems (interrogators and transponders) and their associated cryptographic material on all type/ model/series aircraft by 2020.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0582 / ID Sys				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Mark XIIA Mode 5 IFF (OSIP 15-03) (Capability Improvement)				- / 312.917	- / 49.443	- / 39.196	- / 41.437	- / 0.000	- / 41.437
P-40	Total Gross/Weapon System Cost				- / 312.917	- / 49.443	- / 39.196	- / 41.437	- / 0.000	- / 41.437
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Mark XIIA Mode 5 IFF (OSIP 15-03) (Capability Improvement)				- / 35.653	- / 13.347	- / 9.605	- / 9.797	- / 0.000	- / 511.395
P-40	Total Gross/Weapon System Cost				- / 35.653	- / 13.347	- / 9.605	- / 9.797	- / -	- / 511.395
*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:

Joint Requirements Oversight Council Memorandums (047-07, 122-08 and 108-13) endorsed an Identification Friend or Foe (IFF) Mode 5 Joint Full Operational Capability in 2020. Navy Initial Operational Capability was achieved in FY12. NSA declared IFF Mode 4 will not be supported after 2020. Mode 5 provides added security and more data transmissions than Mode 4. Additionally, Mode 5 uses a spread spectrum waveform, which reduces susceptibility to interference.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0582 / ID Sys					Modification Number / Title: 1 / Mark XIIA Mode 5 IFF (OSIP 15-03)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	0.000	511.395
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	0.000	511.395
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	0.000	511.395
<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: DESCRIPTION/JUSTIFICATION: MK XIIA Mode 5 provides improved secure cooperative combat identification via Identification Friend or Foe (IFF). Mode 5 compatibility is part of the Combat Identification Family of Systems strategy employed by US and North Atlantic Treaty Organization (NATO)/Allied forces and will improve situational awareness, reduce fratricide, reduce enemy disruption of IFF functions and ensure the safe return of friendly aircraft. The DoD implementation is governed by AIMS 03-1000A, AIMS 03-1000B and USN requirements defined in ORD # 577-06-01 and is designed to be compatible with civilian IFF modes to ensure interoperability of military and civilian aircraft. Mode 5 upgrades existing Mode 4 IFF equipment, including cryptography, support equipment, and associated hardware and software changes. Mode 5 is designed to be installed through engineering changes to digital MARK XII interrogators and transponders and their associated cryptographic material including, but not limited to the AN/APX-118/123/123A, AN/APX-111, and AN/APX-119. Joint Requirements Oversight Council Memorandums (047-07, 122-08 and 108-13) endorsed a Joint Full Operational Capability (JFOC) in 2020. Navy IOC was achieved in FY12. Mode 5 will be installed in Navy/Marine Corp/Coast Guard Type/Model/Series aircraft which are currently Mode 4 IFF capable with retrofit phasing to support JFOC. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Mode 5 completed a brass board development in December 1997. Modeling and simulation to demonstrate interoperability was completed in February 1998 to support NATO Standardization Agreement (STANAG) development. Proof of concept flight testing completed in December 1999. Milestone B was completed in March 2003. Milestone C and Low Rate Initial Production was approved in July 2006. Full Rate Production (FRP) was approved July 2012. FRP procurements and Mode 5 Engineering Change Proposals on Navy/Marine Corp aircraft continue as the program continues towards JFOC in 2020.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0582 / ID Sys					Modification Number / Title: 1 / Mark XIIA Mode 5 IFF (OSIP 15-03)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: Various (49 Separate T/ M/S)				Modification Type: Capability Improvement				Related RDT&E PEs: 0604777N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 XIIA Mode 5 IFF (OSIP 15-03)													
A Kits													
Recurring													
1.1.1) Mode 5 IFF - NonOrganic ⁽¹⁾		521 / 5.656	94 / 2.988	24 / 0.351	50 / 2.682	- / -	50 / 2.682	- / -	- / -	- / -	- / -	689 / 11.677	
Subtotal: Recurring		- / 5.656	- / 2.988	- / 0.351	- / 2.682	- / -	- / 2.682	- / -	- / -	- / -	- / 0.000	- / 11.677	
B Kits													
Recurring													
2.1.1) Mode 5 IFF - NonOrganic ⁽²⁾		1,991 / 99.933	398 / 25.528	228 / 15.469	220 / 15.246	- / -	220 / 15.246	215 / 15.467	77 / 5.633	84 / 6.268	24 / 1.827	3,237 / 185.371	
Subtotal: Recurring		- / 99.933	- / 25.528	- / 15.469	- / 15.246	- / -	- / 15.246	- / 15.467	- / 5.633	- / 6.268	- / 1.827	- / 0.000	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic ⁽³⁾		- / 96.176	- / 5.657	- / 8.271	- / 9.016	- / -	- / 9.016	- / 7.492	- / 2.069	- / -	- / -	- / 128.681	
Subtotal: Non-Recurring		- / 96.176	- / 5.657	- / 8.271	- / 9.016	- / -	- / 9.016	- / 7.492	- / 2.069	- / -	- / 0.000	- / 128.681	
Subtotal: Mark XIIA Mode 5 IFF (OSIP 15-03)		2,512 / 201.765	492 / 34.173	252 / 24.091	270 / 26.944	- / -	270 / 26.944	215 / 22.959	77 / 7.702	84 / 6.268	24 / 1.827	3,926 / 325.729	
Subtotal: Procurement, All Modification Items		- / 201.765	- / 34.173	- / 24.091	- / 26.944	- / -	- / 26.944	- / 22.959	- / 7.702	- / 6.268	- / 1.827	- / 0.000	
Support (All Modification Items)													
3.1) Data ⁽⁴⁾		- / 2.630	- / 0.624	- / 0.385	- / 0.468	- / -	- / 0.468	- / 0.405	- / 0.127	- / 0.087	- / 0.037	- / 4.763	
3.2) Training Equipment ⁽⁵⁾		- / 5.735	- / 0.401	- / 2.107	- / 2.408	- / -	- / 2.408	- / 0.116	- / 0.113	- / 0.045	- / -	- / 10.925	
3.3) Support Equipment		- / 17.627	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.627	
3.4) ILS ⁽⁶⁾		- / 11.234	- / 2.397	- / 1.537	- / 1.568	- / -	- / 1.568	- / 1.905	- / 0.802	- / 0.470	- / 0.110	- / 20.023	
3.5) Other Support ⁽⁷⁾		- / 65.587	- / 9.144	- / 7.990	- / 8.437	- / -	- / 8.437	- / 8.180	- / 4.161	- / 2.715	- / 7.823	- / 114.037	
Subtotal: Support		- / 102.813	- / 12.566	- / 12.019	- / 12.881	- / -	- / 12.881	- / 10.606	- / 5.203	- / 3.317	- / 7.970	- / 0.000	
Installation													
Modification Item 1 of 1: Mark XIIA Mode 5 IFF (OSIP 15-03)		- / 8.339	- / 2.704	- / 3.086	- / 1.612	- / 0.000	- / 1.612	- / 2.088	- / 0.442	- / 0.020	- / 0.000	- / 18.291	
Subtotal: Installation		- / 8.339	- / 2.704	- / 3.086	- / 1.612	- / -	- / 1.612	- / 2.088	- / 0.442	- / 0.020	- / -	- / 0.000	
Total													
Total Cost (Procurement + Support + Installation)		312.917	49.443	39.196	41.437	0.000	41.437	35.653	13.347	9.605	9.797	511.395	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0582 / ID Sys										Modification Number / Title: 1 / Mark XIIA Mode 5 IFF (OSIP 15-03)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Mark XIIA Mode 5 IFF (OSIP 15-03)																															
Manufacturer Information																															
Manufacturer Name: BAE															Manufacturer Location: Greenlawn, NY																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates		Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023				Dec 2024					
Installation Information																															
Method of Implementation: Field Installs Kits and Vendor Depot ECP Install:: Installation Name: Mark XIIA Mode 5 IFF																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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		2,169 / 8.339		343 / 2.704		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2,512 / 11.043							
FY 2018		- / -		- / -		492 / 3.086		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		492 / 3.086							
FY 2019		- / -		- / -		- / -		252 / 1.612		0 / 0.000		252 / 1.612		- / -		- / -		- / -		- / -		0 / 0.000		252 / 1.612							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		270 / 2.088		- / -		- / -		- / -		0 / 0.000		270 / 2.088							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		215 / 0.442		- / -		- / -		0 / 0.000		215 / 0.442							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		77 / 0.020		- / -		0 / 0.000		77 / 0.020							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		84 / 0.000		0 / 0.000		84 / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.000		24 / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		2,169 / 8.339		343 / 2.704		492 / 3.086		252 / 1.612		0 / 0.000		252 / 1.612		270 / 2.088		215 / 0.442		77 / 0.020		84 / 0.000		24 / 0.000		3,926 / 18.291							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2,169	86	86	86	85	124	124	122	122	63	63	63	63	68	68	67	67	53	54	54	54	19	19	19	20	21	21	21	21	24	3,926
Out	2,169	86	86	86	85	124	124	122	122	63	63	63	63	68	68	67	67	53	54	54	54	19	19	19	20	21	21	21	21	24	3,926
Footnotes: ⁽¹⁾ Total A-kit quantity decrease due to requirement changes for the KC-130T platform. The A-Kit Recurring unit prices vary from platform-to-platform based on the complexity of the implementation required to achieve the Mode 5 capability. Mode 5 IFF A-Kits will be required for installation on the AV-8B, C-130T, C-20, C-37, C-40, CH-53E, E-6B, F/A-18C/D, KC-130J, KC-130T, MH-53E, UC-12W, and UC-35 platforms, along with the "B" kits. A-Kit applicability and phasing changes (from year to year) are due to refinement in platform requirements and complexity of integration. Many other platforms will only require																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0582 / ID Sys	Modification Number / Title: 1 / Mark XIIA Mode 5 IFF (OSIP 15-03)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
"B" kits (e.g. Mode 5 upgrade of AN/ APX-118 to AN/APX-123A is a form, fit replacement in the aircraft). Installation costs vary by platform based on the implementation required to achieve the Mode 5 capability. The increase in FY20 unit cost is due to AV-8B. The AV-8B kits are more expensive than other platforms due to the complexity of the A-kit for that particular A/C. (2) B-kit quantity increase due to requirement changes for the following platforms: C-130T, C-27J, C-37, C-40, HC-144B, KC-130T, HC-130H, MH-53E. The B-kit Recurring unit cost varies based on what equipment is procured in each year. Installation costs vary by platform based on the implementation required to achieve the Mode 5 capability. The B-Kit solution varies (box or modification kit) from platform-to-platform based on the implementation required to achieve the Mode 5 capability, resulting in an AN/APX-123/123A, AN/APX-111, or AN/APX-119 Mode 5 Kit unit cost more than three times the cost of the AN/ APX-123A Mode 5 kit. That complexity also drives higher integration and installation costs. AN/APX-123/123A boxes/kits have been procured and will continue throughout the program. Procurement of the F/ A-18 AN/APX-111 Receiver-Transmitter (R/T) Shop Replaceable Assembly (SRA), required to address Mode 5 transponder performance issues, is now included in the Mode 5 kit procurement. B-kit total quantity has increased as platform requirements have changed. In addition to providing Mode 5, the systems will provide Mode S capability. PMA-213 works closely with PMA-209, who provides Mode S capability for platforms. To achieve full fielding of both the Mode 5 and Mode S capabilities, both PMA-213 and PMA-209 Budget Line Items (BLIs) integrate and install end items that are required to meet the full platform installation requirements. (3) B-Kit Non-Recurring increase from FY19 to FY20 is due to integration of HC-130H platform beginning in FY20. B-Kit Non-Recurring estimates are based on the specific platform implementation, thus costs will vary year to year. (4) Data Costs are estimated based on platform requirements and phasing and increase as more platforms execute Mode 5 upgrades in a given year. (5) Training costs are estimated based on platform requirements, e.g. operational and/or maintenance, and phased according to the platform schedule. The increase from FY19 to FY20 is due to the incorporation of operational and maintenance trainer upgrades of the AN/APX-119 in the CH-53K platform. (6) ILS Costs are estimated based on platform requirements and phasing and increase as more platforms execute Mode 5 upgrades in a given year. The increase in ILS from FY20 to FY21 is caused by the following platforms' requirements: C-20, C-37, F/A-18A+/C/D, F/A-18E/F/G, HC-130H, and KC-130J. (7) Other Support costs are estimated based on the platform requirements and phasing and increase as more platforms execute Mode 5 upgrades in a given year. The increase in Other Support from FY19 to FY20 is caused by the following platforms' requirements: AV-8B, C-20, C-37, F/A-18A+/C/D, and HC-130H. The increase from FY23 to FY24 is due to the support required for the F/A-18A+/C/D.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0586 / P-8 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	88.319	14.783	67.416	107.539	0.000	107.539	216.822	295.945	339.031	347.663	1,701.306	3,178.824
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	88.319	14.783	67.416	107.539	0.000	107.539	216.822	295.945	339.031	347.663	1,701.306	3,178.824
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	88.319	14.783	67.416	107.539	0.000	107.539	216.822	295.945	339.031	347.663	1,701.306	3,178.824
<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 P-8A is a heavily modified and militarized derivative of Boeing's 737-800 aircraft that provides Broad Area Maritime and Littoral Armed multi-mission support. Number of aircraft in the inventory is as follows: Active duty-71 fielded of 117 funded; National Guard-0; Reserves-0. Designed service life is 25 years with an average service life remaining of 24 years. OSIP 026-12 provides funding for Correction of Deficiencies revealed during Test and Evaluation (T&E) and discovered during fleet operations that resulted in safety and reliability degradation, as well as Modernization requirements to sensors, avionics, and airframe components via engineering changes. Funding is provided for changes to TacMobile, Increment 2 (Spiral 1) Engineering Change Proposals (ECPs) 2 and 3, which include Multi-Active Coherent, High Altitude Anti-Submarine Warfare Weapon Capability (HAAWC), HAAWC Mid-Course guidance, and Net Enabled Weapon Link-16 message implementation, and mission systems modernization efforts which improve reliability, maintainability and suitability, and correct safety related issues. This OSIP corrects aircraft deficiencies resulting from readiness, obsolescence, safety and Diminishing Manufacturing Sources and Material Shortages (DMSMS), and provides for Pre-Planned Product Improvement (P3I) efforts to modernize aircraft systems performance, improve aircrew safety, and incorporate structural enhancements to enable the airframe to reach its designed/extended service life. In order to more clearly define program requirements, efforts in OSIP 026-12 will transition to the Mission Systems OSIP (006-18) and Aircraft Systems OSIP (001-19) by FY23. OSIP 006-18 provides funding for P-8A Mission Systems Upgrades to ensure the aircraft continues to meet the Navy's Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASuW), and Intelligence, Surveillance and Reconnaissance (ISR) Sea Control requirements by upgrading P-8A mission systems hardware, software, and firmware components. Funding is provided for P-8A Increment 3 (Spiral 2), which consists of a series of ECPs which upgrades P-8A systems, including Combat System architecture improvements, ASW and ASuW sensor improvements, communication capability upgrades, ASuW Net Enabled Weapon (NEW), Higher-Than-Secret (HTS) security capability, and training systems updates and supporting documentation. This OSIP funds Mission Systems improvements identified as fleet prioritized requirements or as a part of the Rapid Capability Insertion (RCI) process to address reliability improvements, obsolescence, periodic technology insertion, urgent operational needs, correction of deficiencies and flight safety issues, including funds to implement various cost effective changes to critical P-8A Weapon systems and corresponding changes to Tactical Operations Center (TOC) and Mobile Tactical Operation Center (MTOC). OSIP 002-15 provides funding for Chief of Naval Operations Project K-0416 program, which provides a rapid response Anti-Submarine Warfare (ASW) intelligence collection, analysis, and reporting system. OSIP 001-19 provides funding for P-8A Aircraft Systems Upgrades to enable modifications to the aircraft in order to improve aircrew safety, modernize airframe, engine, weapons and stores, and sonobouy launch system performance, and incorporate structural enhancements to resolve readiness, obsolescence, correction of test and Fleet identified deficiencies, and safety issues required for the airframe to reach												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0586 / P-8 Series
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		
its designed/extended service life. Funding is provided for airframe modifications to support changes in Size, Weight, Power, and Cooling (SWAP-C) requirements of aircraft and mission systems equipment or as part of the RCI process, to incorporate Quick Reaction Capabilities (QRC) both on a temporary and permanent basis, and to incorporate aircraft and propulsion systems related service bulletins and technical directives.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0586 / P-8 Series						
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12) (Mission Capabilities)				- / 83.119	- / 10.606	- / 4.194	- / 3.078	- / 0.000	- / 3.078	
P-3a	2 / CNO Project K-0416 (OSIP 002-15) (Operational Improvement)				- / 5.200	- / 1.989	- / 2.000	- / 2.000	- / 0.000	- / 2.000	
P-3a	3 / P-8A Mission Systems RCI (OSIP 006-18) (TBD)				- / 0.000	- / 2.188	- / 54.963	- / 95.516	- / 0.000	- / 95.516	
P-3a	4 / P-8A Aircraft Systems (OSIP 001-19) (TBD)				- / 0.000	- / 0.000	- / 6.259	- / 6.945	- / 0.000	- / 6.945	
P-40	Total Gross/Weapon System Cost				- / 88.319	- / 14.783	- / 67.416	- / 107.539	- / 0.000	- / 107.539	
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12) (Mission Capabilities)				- / 3.734	- / 1.258	- / 0.000	- / 0.000	- / 0.000	- / 105.989	
P-3a	2 / CNO Project K-0416 (OSIP 002-15) (Operational Improvement)				- / 1.978	- / 2.000	- / 2.000	- / 2.000	- / 2.000	- / 21.167	
P-3a	3 / P-8A Mission Systems RCI (OSIP 006-18) (TBD)				- / 204.748	- / 284.540	- / 328.776	- / 337.185	- / 1,589.176	- / 2,897.092	
P-3a	4 / P-8A Aircraft Systems (OSIP 001-19) (TBD)				- / 6.362	- / 8.147	- / 8.255	- / 8.478	- / 110.130	- / 154.576	
P-40	Total Gross/Weapon System Cost				- / 216.822	- / 295.945	- / 339.031	- / 347.663	- / 1,701.306	- / 3,178.824	
*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 P-8A is a heavily modified and militarized derivative of Boeing's 737-800 aircraft that provides Broad Area Maritime and Littoral Armed multi-mission support.

The FY2020 funding request was reduced by \$4.072 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series						Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	83.119	10.606	4.194	3.078	0.000	3.078	3.734	1.258	0.000	0.000	0.000	105.989
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	83.119	10.606	4.194	3.078	0.000	3.078	3.734	1.258	0.000	0.000	0.000	105.989
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	83.119	10.606	4.194	3.078	0.000	3.078	3.734	1.258	0.000	0.000	0.000	105.989
<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 P-8A is a heavily modified and militarized derivative of Boeing's 737-800 aircraft that provides Broad Area Maritime and Littoral Armed multi-mission support. OSIP 026-12 provides funding for the resolution of Correction of Deficiencies revealed during post production Test and Evaluation (T&E) and discovered during fleet operations that resulted in safety and reliability degradation, as well as Modernization requirements to sensors, avionics, and airframe components via engineering changes. Funding is provided for changes to TacMobile, Increment 2 (Spiral 1) Engineering Change Proposals (ECPs) 2 and 3, which include Multi-Active Coherent, High Altitude Anti-Submarine Warfare Weapon Capability (HAAWC), HAAWC Mid-Course guidance, and Net Enabled Weapon Link-16 message implementation, and mission systems modernization efforts which improve reliability, maintainability and suitability, and correct safety related issues. This OSIP corrects aircraft deficiencies resulting from readiness, obsolescence, safety and Diminishing Manufacturing Sources and Material Shortages (DMSMS), and provides for Pre-Planned Product Improvement (P3I) efforts to modernize aircraft systems performance, improve aircrew safety, and incorporate structural enhancements to enable the airframe to reach its designed/extended service life. In order to more clearly define program requirements, efforts in OSIP 026-12 will transition to the Mission Systems OSIP (006-18) and Aircraft Systems OSIP (001-19) by FY23. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: The P-8 Baseline program achieved Milestone (MS)-C in FY10. Note: Modernization and Safety consist of both various associated A & B kits and individual A & B kits, therefore the ratio of A to B Kits is not always consistent. Note: The Corrections of Deficiencies include the productionization of test aircraft that will be returned to the fleet. Note: To provide additional budget justification, starting in FY19 the modernization and safety, mission systems mod and airframe mod have been further defined into fuel systems AUX drain, STA 500F interference condition, double wall fuel tubes, SMPDM Transfer Valve, STA500E, CVFD Battery, CDRS Radiant Mercury, and Rev-A Tailcone Fastener Categories.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: P-8A MMA			Modification Type: Mission Capabilities					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Modernization and Safety - NonOrganic Installation 1 of 13	30 / 0.515	29 / 0.112	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	59 / 0.627	
1.1.2) Increment 2 ECP 3 (Weapons Provision) - NonOrganic Installation 2 of 13	38 / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 0.800	
1.1.3) Mission Systems MOD - Organic(*)	45 / 0.900	8 / 0.163	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	53 / 1.063	
1.1.4) Airframe MOD - NonOrganic Installation 3 of 13	6 / 0.120	8 / 1.084	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.204	
1.1.5) SSL/SRL - NonOrganic Installation 4 of 13	5 / 1.240	4 / 0.802	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.042	
1.1.6) Prior Year Archive - Organic(*)	- / 32.922	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 32.922	
2.1.1) Modernization and Safety - Organic(*) (1)	60 / 14.915	10 / 0.141	10 / 0.146	16 / 0.238	- / -	16 / 0.238	16 / 0.242	- / -	- / -	- / -	- / -	112 / 15.682	
2.1.2) Mission Systems MOD - Organic(*)	6 / 0.338	8 / 0.486	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.824	
2.1.3) Acoustics Processor Tech Refresh/Insertion - Organic(*)	42 / 6.354	10 / 1.018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 7.372	
2.1.4) Airframe MOD - Organic(*)	6 / 0.300	8 / 0.407	4 / 0.208	4 / 0.212	- / -	4 / 0.212	1 / 0.054	- / -	- / -	- / -	- / -	23 / 1.181	
2.1.5) Aircraft Structural MOD - NonOrganic Installation 5 of 13	- / -	- / -	10 / 0.014	10 / 0.015	- / -	10 / 0.015	14 / 0.019	- / -	- / -	- / -	- / -	34 / 0.048	
2.1.6) Engine Coating - NonOrganic Installation 6 of 13	3 / 0.075	9 / 0.229	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.304	
2.1.7) Air Compressor Shroud - NonOrganic Installation 7 of 13	2 / 0.074	9 / 0.333	1 / 0.037	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.444	
2.1.8) SSL/SRL - Organic(*)	5 / 0.550	4 / 0.448	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.998	
2.1.9) Fuel System AUX Drain - NonOrganic Installation 8 of 13	- / -	- / -	4 / 0.003	12 / 0.010	- / -	12 / 0.010	12 / 0.010	- / -	- / -	- / -	- / -	28 / 0.023	
2.1.10) STA 500F Interference Condition - NonOrganic Installation 9 of 13	- / -	- / -	6 / 0.057	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.057	
2.1.11) Double Walled Fuel Tubes - NonOrganic Installation 10 of 13	- / -	- / -	7 / 0.099	11 / 0.158	- / -	11 / 0.158	8 / 0.117	- / -	- / -	- / -	- / -	26 / 0.374	
2.1.12) SMPDM Transfer Valve - NonOrganic Installation 11 of 13	- / -	- / -	- / -	6 / 0.006	- / -	6 / 0.006	12 / 0.012	- / -	- / -	- / -	- / -	18 / 0.018	
2.1.13) STA 500E Retrofit - NonOrganic Installation 12 of 13	- / -	- / -	6 / 0.024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.024	
2.1.15) CVFD Battery Upgrade - Organic(*)	- / -	- / -	29 / 0.229	11 / 0.088	- / -	11 / 0.088	16 / 0.128	- / -	- / -	- / -	- / -	56 / 0.445	
2.1.16) CDRS Radiant Mercury - Organic(*)	- / -	- / -	20 / 1.020	20 / 1.040	- / -	20 / 1.040	34 / 1.802	- / -	- / -	- / -	- / -	74 / 3.862	
2.1.17) REV A Tailcone Fastener - NonOrganic	- / -	- / -	7 / 0.011	24 / 0.039	- / -	24 / 0.039	21 / 0.035	- / -	- / -	- / -	- / -	52 / 0.085	

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series					Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: P-8A MMA			Modification Type: Mission Capabilities					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 13 of 13													
2.2.1) Installation Equipment N/R - Organic(*)	- / 3.339	- / 0.430	- / -	- / 0.100	- / -	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / 3.869	
Subtotal: Procurement	- / 62.442	- / 5.653	- / 1.848	- / 1.906	- / -	- / 1.906	- / 2.419	- / -	- / -	- / -	- / 0.000	- / 74.268	
Support													
3.2) Data	- / 1.555	- / 0.145	- / 0.127	- / 0.125	- / -	- / 0.125	- / 0.025	- / 0.018	- / -	- / -	- / -	- / 1.995	
3.3) Training Equipment	9 / 3.989	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 3.989	
3.4) Increment 2 ECP 2 Trainers	15 / 6.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 6.000	
3.6) ILS	- / 0.749	- / 0.200	- / 0.175	- / 0.175	- / -	- / 0.175	- / 0.030	- / 0.025	- / -	- / -	- / -	- / 1.354	
3.7) Other Support	- / 6.695	- / 0.462	- / 0.465	- / 0.305	- / -	- / 0.305	- / 0.068	- / 0.047	- / -	- / -	- / -	- / 8.042	
Subtotal: Support	- / 18.988	- / 0.807	- / 0.767	- / 0.605	- / -	- / 0.605	- / 0.123	- / 0.090	- / -	- / -	- / 0.000	- / 21.380	
Installation													
Installation 1 of 13: GRP: Modernization and Safety	- / -	- / 0.750	- / 0.725	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.475	
Installation 2 of 13: GRP: Weapons Provision	- / 1.200	- / 1.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.783	
Installation 3 of 13: Airframe MOD	- / 0.300	- / 1.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 1.500	
Installation 4 of 13: GRP: SSL / SRL	- / 0.039	- / 0.039	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.078	
Installation 5 of 13: Aircraft Structural MOD	- / -	- / -	- / -	- / 0.072	- / 0.000	- / 0.072	- / 0.074	- / 0.117	- / -	- / -	- / 0.000	- / 0.263	
Installation 6 of 13: GRP: Engine Coating	- / 0.150	- / 0.374	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.524	
Installation 7 of 13: GRP: Air Compressor Shroud	- / -	- / 0.200	- / 0.750	- / 0.085	- / 0.000	- / 0.085	- / -	- / -	- / -	- / -	- / 0.000	- / 1.035	
Installation 8 of 13: Fuel System AUX Drain	- / -	- / -	- / -	- / 0.143	- / 0.000	- / 0.143	- / 0.437	- / 0.445	- / -	- / -	- / 0.000	- / 1.025	
Installation 9 of 13: STA 500F Interference Condition	- / -	- / -	- / 0.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.104	
Installation 10 of 13: Double Walled Fuel Tubes	- / -	- / -	- / -	- / 0.129	- / 0.000	- / 0.129	- / 0.206	- / 0.153	- / -	- / -	- / 0.000	- / 0.488	
Installation 11 of 13: SMPDM Transfer Valve	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.026	- / 0.052	- / -	- / -	- / 0.000	- / 0.078	
Installation 12 of 13: STA 500E Retrofit	- / -	- / -	- / -	- / 0.009	- / 0.000	- / 0.009	- / -	- / -	- / -	- / -	- / 0.000	- / 0.009	
Installation 13 of 13: REV A Tailcone Fastener	- / -	- / -	- / -	- / 0.129	- / 0.000	- / 0.129	- / 0.449	- / 0.401	- / -	- / -	- / 0.000	- / 0.979	
Subtotal: Installation	- / 1.689	- / 4.146	- / 1.579	- / 0.567	- / -	- / 0.567	- / 1.192	- / 1.168	- / -	- / -	- / 0.000	- / 10.341	
Total													
Total Cost (Procurement + Support + Installation)	83.119	10.606	4.194	3.078	0.000	3.078	3.734	1.258	0.000	0.000	0.000	105.989	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 13: GRP: Modernization and Safety																															
Manufacturer Information																															
Manufacturer Name: Modernization and Safety															Manufacturer Location: Not Specified..																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Feb 2018																													
Delivery Dates		Oct 2018																													
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: Modernization and Safety																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -	30 / 0.750		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		30 / 0.750								
FY 2018		- / -	- / -		29 / 0.725		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		29 / 0.725								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	30 / 0.750		29 / 0.725		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		59 / 1.475								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	7	7	8	8	7	7	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59
Out	-	-	7	7	8	8	7	7	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 13: GRP: Weapons Provision																															
Manufacturer Information																															
Manufacturer Name: Boeing - Increment 2 ECP 3 (Weapons Provision)															Manufacturer Location: Seattle, WA																
Administrative Leadtime (<i>in Months</i>): 5															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field MOD Team:: Installation Name: Weapons Provision																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total							
		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		19 / 1.200		19 / 1.583		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		38 / 2.783					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		19 / 1.200		19 / 1.583		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		38 / 2.783					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	19	5	5	5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38
Out	15	4	5	5	5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 13: Airframe MOD																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017																													
Delivery Dates		May 2018																													
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Airframe MOD																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.300		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.300							
FY 2018		- / -		8 / 1.200		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		8 / 1.200							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		6 / 0.300		8 / 1.200		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		14 / 1.500							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Out	3	3	-	-	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 13: GRP: SSL / SRL																															
Manufacturer Information																															
Manufacturer Name: Boeing - SSL/SRL															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018																													
Delivery Dates		Mar 2018																													
Installation Information																															
Method of Implementation: Contractor Field MOD Team:: Installation Name: SSL / SRL																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.039		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 0.039							
FY 2018		- / -		4 / 0.039		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.039							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		5 / 0.039		4 / 0.039		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		9 / 0.078							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Out	3	2	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 13: Aircraft Structural MOD																															
Manufacturer Information																															
Manufacturer Name: TBD-Aircraft Structural Mod															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 5															Production Leadtime <i>(in Months)</i> : 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020				Feb 2021																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: Aircraft Structural MOD																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		10 / 0.072		0 / 0.000		10 / 0.072		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.072					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.074		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.074					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		14 / 0.117		- / -		- / -		- / -		0 / 0.000		14 / 0.117					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		10 / 0.072		0 / 0.000		10 / 0.072		10 / 0.074		14 / 0.117		- / -		- / -		- / -		0 / 0.000		34 / 0.263					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	2	2	2	3	3	4	4	3	3	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	-	3	2	3	2	2	2	3	3	4	4	3	3	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 13: GRP: Engine Coating																															
Manufacturer Information																															
Manufacturer Name: CFM - Engine Coating															Manufacturer Location: Cincinnati, OH																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 1																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017																													
Delivery Dates		Jan 2018																													
Installation Information																															
Method of Implementation: Depot MOD:: Installation Name: Engine Coating																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.150		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 0.150							
FY 2018		- / -		9 / 0.374		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		9 / 0.374							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		3 / 0.150		9 / 0.374		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.524							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	2	1	-	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 13: GRP: Air Compressor Shroud																															
Manufacturer Information																															
Manufacturer Name: CFM - Air Compressor Shroud															Manufacturer Location: Cincinnati, OH																
Administrative Leadtime (<i>in Months</i>): 5															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Feb 2018				Feb 2019																									
Delivery Dates		Oct 2018				Oct 2019																									
Installation Information																															
Method of Implementation: Contractor Field MOD Team:: Installation Name: Air Compressor Shroud																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.200		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.200								
FY 2018		- / -	- / -		9 / 0.750		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		9 / 0.750								
FY 2019		- / -	- / -		- / -		1 / 0.085		0 / 0.000		1 / 0.085		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.085								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	2 / 0.200		9 / 0.750		1 / 0.085		0 / 0.000		1 / 0.085		- / -		- / -		- / -		- / -		- / -		0 / 0.000								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	-	1	-	1	-	2	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 13: Fuel System AUX Drain																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020				Feb 2021																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: Fuel System AUX Drain																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		4 / 0.143		0 / 0.000		4 / 0.143		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.143						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		12 / 0.437		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.437						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.445		- / -		- / -		- / -		0 / 0.000		12 / 0.445						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		4 / 0.143		0 / 0.000		4 / 0.143		12 / 0.437		12 / 0.445		- / -		- / -		- / -		0 / 0.000		28 / 1.025						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	28
Out	-	-	-	-	-	-	-	-	-	1	1	1	1	3	3	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	28

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 9 of 13: STA 500F Interference Condition																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018																									
Delivery Dates						Feb 2019																									
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: STA 500F Interference Condition																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		6 / 0.104		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.104						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		6 / 0.104		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.104						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Out	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 10 of 13: Double Walled Fuel Tubes																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020				Feb 2021																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: Double Walled Fuel Tubes																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		7 / 0.129		0 / 0.000		7 / 0.129		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.129						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		11 / 0.206		- / -		- / -		- / -		- / -		0 / 0.000		11 / 0.206						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.153		- / -		- / -		- / -		0 / 0.000		8 / 0.153						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		7 / 0.129		0 / 0.000		7 / 0.129		11 / 0.206		8 / 0.153		- / -		- / -		- / -		0 / 0.000		26 / 0.488						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	2	3	3	3	3	3	2	-	-	-	-	-	-	-	-	-	-	26
Out	-	-	-	-	-	-	-	-	-	-	2	2	2	1	2	3	3	3	3	3	2	-	-	-	-	-	-	-	-	-	26

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 11 of 13: SMPDM Transfer Valve																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 7															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Apr 2020				Apr 2021																	
Delivery Dates										Jan 2021				Jan 2022																	
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: SMPDM Transfer Valve																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		6 / 0.026		- / -		- / -		- / -		0 / 0.000		6 / 0.026								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.052		- / -		- / -		0 / 0.000		12 / 0.052								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		- / -		- / -		- / -		6 / 0.026		12 / 0.052		- / -		- / -		0 / 0.000		18 / 0.078								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	4	4	4	-	-	-	-	-	-	-	-	-	18
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	4	4	4	-	-	-	-	-	-	-	-	18

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 12 of 13: STA 500E Retrofit																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019																									
Delivery Dates						Oct 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: STA 500E Retrofit																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		6 / 0.009		0 / 0.000		6 / 0.009		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.009								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		6 / 0.009		0 / 0.000		6 / 0.009		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.009						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
Out	-	-	-	-	-	-	-	-	-	-	2	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 1 / P-8A Correction of Deficiencies and Modernization (OSIP 026-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 13 of 13: REV A Tailcone Fastener																															
Manufacturer Information																															
Manufacturer Name: BOEING															Manufacturer Location: Seattle, WA																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020				Feb 2021																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: Commercial Depot:: Installation Name: REV A Tailcone Fastener																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		7 / 0.129		0 / 0.000		7 / 0.129		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.129					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.449		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.449					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 0.401		- / -		- / -		- / -		0 / 0.000		21 / 0.401					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		7 / 0.129		0 / 0.000		7 / 0.129		24 / 0.449		21 / 0.401		- / -		- / -		0 / 0.000		52 / 0.979							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	6	6	8	8	6	6	1	-	-	-	-	-	-	-	-	-	52
Out	-	-	-	-	-	-	-	-	-	-	2	2	1	2	4	6	6	8	8	6	6	1	-	-	-	-	-	-	-	-	52
Footnotes:																															
(1) The Modernization and Safety include the productionization test aircraft that will be returned to the fleet. Modernization and Safety consist of both various associated A & B kits and individual A & B kits, therefore the ratio of A to B Kits is not always consistent.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 2 / CNO Project K-0416 (OSIP 002-15)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:					

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.200	1.989	2.000	2.000	0.000	2.000	1.978	2.000	2.000	2.000	2.000	21.167
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.200	1.989	2.000	2.000	0.000	2.000	1.978	2.000	2.000	2.000	2.000	21.167
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.200	1.989	2.000	2.000	0.000	2.000	1.978	2.000	2.000	2.000	2.000	21.167

(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:

Chief of Naval Operations (CNO) Project K-0416 program provides a rapid response Anti-Submarine Warfare intelligence collection, analysis, and reporting system program focused on Operations Plan specific threat submarines, both conventional and nuclear.

The program accomplishes this by introducing advanced collection avionics that operate with special calibrated sensors to provide threat target data for tactical, Science and Technology (S&T), and weapon design uses. The Sound Pressure Level Collection Suite that is installed on the P-8 mission kits contain several Weapons Replaceable Assembly's, both fabricated & procured. The Suite includes a 8201 modulation meter, a panasonic toughbook, and a Beartrap Automated Noise and Digital Integrated Test set, and the acoustic intelligence collection suite.

CNO K-0416 will calibrate P-8 Platforms, forward sited laboratories, and select forward deployed sites with these collection avionics to provide tactical and S&T Intelligence. Prime performer is the Naval Air Warfare Center (NAWC), Patuxent River. NAWC performs system integration, material acquisition, fabrication, and installation of collection systems.

DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The changes identified are minor and do not require approval for full production.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 2 / CNO Project K-0416 (OSIP 002-15)					
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: P-8A MMA				Modification Type: Operational Improvement				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Airborne Anti-Submarine Warfare Intelligence Equipment - Organic ^(*)	12 / 0.800	4 / 0.400	4 / 0.400	4 / 0.400	- / -	4 / 0.400	4 / 0.400	4 / 0.400	4 / 0.400	4 / 0.400	4 / 0.400	44 / 4.000	
2.1.1) Active Target Strength C2 - Organic ^(*) (2)	2 / 0.400	1 / 0.200	1 / 0.200	1 / 0.200	- / -	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	1 / 0.200	10 / 2.000	
<i>Subtotal: Procurement</i>	<i>- / 1.200</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / -</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 0.600</i>	<i>- / 6.000</i>	
Support													
3.4) Support Equipment	- / 0.600	- / 0.200	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.000	
3.6) Other Support ⁽³⁾	- / 1.600	- / 0.589	- / 0.600	- / 1.400	- / -	- / 1.400	- / 1.378	- / 1.400	- / 1.400	- / 1.400	- / 1.400	- / 11.167	
3.7) Interim Contractor Support	- / 1.800	- / 0.600	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.000	
<i>Subtotal: Support</i>	<i>- / 4.000</i>	<i>- / 1.389</i>	<i>- / 1.400</i>	<i>- / 1.400</i>	<i>- / -</i>	<i>- / 1.400</i>	<i>- / 1.378</i>	<i>- / 1.400</i>	<i>- / 1.400</i>	<i>- / 1.400</i>	<i>- / 1.400</i>	<i>- / 15.167</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	5.200	1.989	2.000	2.000	0.000	2.000	1.978	2.000	2.000	2.000	2.000	21.167	
Footnotes: ⁽²⁾ B-Kit includes material only. ⁽³⁾ Other Support includes field fabrication support of B-Kit.													

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	2.188	54.963	95.516	0.000	95.516	204.748	284.540	328.776	337.185	1,589.176	2,897.092
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	2.188	54.963	95.516	0.000	95.516	204.748	284.540	328.776	337.185	1,589.176	2,897.092
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	2.188	54.963	95.516	0.000	95.516	204.748	284.540	328.776	337.185	1,589.176	2,897.092
<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 P-8A is a heavily modified and militarized derivative of Boeing's 737-800 aircraft that provides Broad Area Maritime and Littoral Armed multi-mission support.

OSIP 006-18 provides funding for P-8A Mission Systems Upgrades to ensure the aircraft continues to meet the Navy's Anti-Submarine Warfare (ASW), Anti-Surface Warfare (ASuW), and ISR Sea Control requirements by upgrading P-8A mission systems hardware, software, and firmware components. The most significant effort this OSIP provides funding for is P-8A Increment 3 (Spiral 2), which consists of a series of ECPs which upgrades P-8A systems, including Combat System architecture improvements, ASW and ASuW sensor improvements, communication capability upgrades, ASuW Net Enabled Weapon, Higher-Than-Secret security capability, and training systems updates and supporting documentation. This OSIP also funds Mission Systems improvements identified as fleet prioritized requirements or as a part of the Rapid Capability Insertion (RCI) process to address reliability improvements, obsolescence, periodic technology insertion, urgent operational needs, correction of deficiencies and flight safety issues, including funds to implement various cost effective changes to critical P-8A Weapon systems and corresponding changes to Tactical Operations Center and Mobile Tactical Operation Center.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Increment 3 capabilities are being developed as a series of ECPs.

Note: This modification addresses all P-8A aircraft.

Note: ECP 6 fielding in 1Q2024 includes 7 aircraft (1 squadron) modified, trained and ready to deploy.

The FY2020 funding request was reduced by \$4.072 million to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series					Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: P-8A MMA				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Increment 3 ECP 5 - NonOrganic Installation 1 of 3	- / -	- / -	12 / 1.200	24 / 2.441	- / -	24 / 2.441	24 / 2.482	24 / 2.522	5 / 0.534	- / -	- / -	89 / 9.179	
1.1.2) Increment 3 ECP 6 - NonOrganic Installation 2 of 3	- / -	- / -	- / -	3 / 6.101	- / -	3 / 6.101	10 / 20.677	12 / 25.220	15 / 32.035	15 / 32.545	64 / 146.943	119 / 263.521	
1.1.3) Other Mission Systems - 6th Workstation - NonOrganic Installation 3 of 3	- / -	3 / 0.012	24 / 0.099	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 0.111	
2.1.1) Increment 3 ECP 5 - Organic ^(*)	- / -	- / -	12 / 0.899	24 / 1.050	- / -	24 / 1.050	24 / 1.068	24 / 1.086	5 / 0.230	- / -	- / -	89 / 4.333	
2.1.2) Increment 3 ECP 6 - Organic ^(*)	- / -	- / -	- / -	3 / 32.929	- / -	3 / 32.929	10 / 111.597	12 / 136.118	15 / 172.900	15 / 175.652	64 / 781.925	119 / 1,411.121	
2.1.3) Other Mission Systems - 6th Workstation - Organic ^(*)	- / -	3 / 1.931	24 / 15.705	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 17.636	
2.1.4) Other Mission Systems - Acoustic Receiver - Organic ^(*) (4)	- / -	- / -	93 / 19.995	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	93 / 19.995	
2.1.5) Other Mission Systems - MIDS JTRS - Organic ^(*) (5)	- / -	- / -	- / -	43 / 13.846	- / -	43 / 13.846	20 / 6.549	20 / 6.659	- / -	- / -	- / -	83 / 27.054	
2.2.1) Installation Equipment NRE - Organic ^(*) (6)	- / -	- / -	- / 9.924	- / 10.949	- / -	- / 10.949	- / 3.357	- / -	- / 3.045	- / 4.874	- / 15.578	- / 47.727	
Subtotal: Procurement	- / 0.000	- / 1.943	- / 47.822	- / 67.316	- / -	- / 67.316	- / 145.730	- / 171.605	- / 208.744	- / 213.071	- / 944.446	- / 1,800.677	
Support													
3.2) Data	- / -	- / -	- / 0.857	- / 1.098	- / -	- / 1.098	- / 1.689	- / 2.324	- / 2.431	- / 2.450	- / 14.100	- / 24.949	
3.3) Increment 3 Trainers ⁽⁷⁾	- / -	- / -	- / -	5 / 7.709	- / -	5 / 7.709	9 / 14.108	11 / 17.526	9 / 14.572	9 / 14.804	16 / 26.730	59 / 95.449	
3.4) ILS ⁽⁸⁾	- / -	- / -	- / 2.109	- / 2.176	- / -	- / 2.176	- / 2.389	- / 5.607	- / 3.350	- / 3.350	- / 25.198	- / 44.179	
3.5) Other Support ⁽⁹⁾	- / -	- / 0.245	- / 4.055	- / 9.041	- / -	- / 9.041	- / 14.105	- / 18.613	- / 18.616	- / 18.845	- / 133.574	- / 217.094	
Subtotal: Support	- / 0.000	- / 0.245	- / 7.021	- / 20.024	- / -	- / 20.024	- / 32.291	- / 44.070	- / 38.969	- / 39.449	- / 199.602	- / 381.671	
Installation													
Installation 1 of 3: GRP: Increment 3 ECP 5	- / -	- / -	- / -	- / 7.200	- / 0.000	- / 7.200	- / 14.645	- / 14.890	- / 15.134	- / 3.204	- / 0.000	- / 55.073	
Installation 2 of 3: GRP: Increment 3 ECP 6	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.794	- / 49.787	- / 60.727	- / 77.136	- / 432.742	- / 630.186	
Installation 3 of 3: Other Mission Systems - 6th Workstation	- / -	- / -	- / 0.120	- / 0.976	- / 0.000	- / 0.976	- / 0.000	- / -	- / -	- / -	- / 0.000	- / 1.096	
Subtotal: Installation	- / 0.000	- / -	- / 0.120	- / 8.176	- / -	- / 8.176	- / 26.727	- / 68.865	- / 81.063	- / 84.665	- / 445.128	- / 714.744	
Total													
Total Cost (Procurement + Support + Installation)	0.000	2.188	54.963	95.516	0.000	95.516	204.748	284.540	328.776	337.185	1,589.176	2,897.092	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: GRP: Increment 3 ECP 5																															
Manufacturer Information																															
Manufacturer Name: Boeing - Increment 3 ECP 5															Manufacturer Location: Seattle, WA																
Administrative Leadtime (<i>in Months</i>): 0															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Apr 2019				Oct 2019				Oct 2020				Oct 2021				Oct 2022									
Delivery Dates						Apr 2020				Oct 2020				Oct 2021				Oct 2022				Oct 2023									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Increment 3 ECP 5																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		12 / 7.200		0 / 0.000		12 / 7.200		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 7.200						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		24 / 14.645		- / -		- / -		- / -		- / -		0 / 0.000		24 / 14.645						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		24 / 14.890		- / -		- / -		- / -		0 / 0.000		24 / 14.890						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 15.134		- / -		- / -		0 / 0.000		24 / 15.134						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 3.204		0 / 0.000		5 / 3.204						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		12 / 7.200		0 / 0.000		12 / 7.200		24 / 14.645		24 / 14.890		24 / 15.134		5 / 3.204		0 / 0.000		89 / 55.073								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	6	6	6	6	6	6	6	6	6	6	6	6	6	5	-	-	-	-	89
Out	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	-	-	-	89

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019																								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)																							
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																				
Installation 2 of 3: GRP: Increment 3 ECP 6																															
Manufacturer Information																															
Manufacturer Name: TBD -Increment 3 ECP 6 ⁽¹⁰⁾										Manufacturer Location: TBD																					
Administrative Leadtime <i>(in Months)</i> : 7										Production Leadtime <i>(in Months)</i> : 18																					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates			Apr 2020	Jan 2021	Jan 2022	Jan 2023	Jan 2024																								
Delivery Dates			Oct 2021	Apr 2022	Apr 2023	Apr 2024	Apr 2025																								
Installation Information																															
Method of Implementation: Depot:: Installation Name: Increment 3 ECP 6																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)																		
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	2 / 9.794	1 / 4.979	- / -	- / -	0 / 0.000	3 / 14.773																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 44.808	1 / 5.061	- / -	0 / 0.000	10 / 49.869																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 55.666	1 / 5.142	0 / 0.000	12 / 60.808																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 71.994	1 / 5.411	15 / 77.405																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 81.159	15 / 81.159																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	64 / 346.172	64 / 346.172																			
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 9.794	10 / 49.787	12 / 60.727	15 / 77.136	80 / 432.742	119 / 630.186																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	1	4	4	3	1	5	5	4	80	119
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	3	3	1	4	4	3	95	119

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 3: Other Mission Systems - 6th Workstation																															
Manufacturer Information																															
Manufacturer Name: Boeing - Sixth Work Station A kit															Manufacturer Location: Seattle - WA																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 14																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Dec 2017				Dec 2018																									
Delivery Dates		Feb 2019				Feb 2020																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Other Mission Systems - 6th Workstation																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2018		- / -	- / -		3 / 0.120		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000								
FY 2019		- / -	- / -		- / -		18 / 0.976		0 / 0.000		18 / 0.976		6 / 0.000		- / -		- / -		- / -		- / -		0 / 0.000								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		3 / 0.120		18 / 0.976		0 / 0.000		18 / 0.976		6 / 0.000		- / -		- / -		- / -		- / -		0 / 0.000								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	3	-	-	-	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Footnotes: ⁽⁴⁾ Acoustic Receiver B-Kit will be installed at the O-Level. ⁽⁵⁾ Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) B-Kit will be installed at the O-Level.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0586 / P-8 Series	Modification Number / Title: 3 / P-8A Mission Systems RCI (OSIP 006-18)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(6) Lots 1-7 are a different configuration than Lot 8 and beyond, therefore, FY20-21 addresses NRE to incorporate ECP 6 into Lots 1-7. Lot 8 and beyond NRE is budgeted in FY23, FY24 and To Complete. (7) INC 3 trainer procurement begins in FY20 and is required to maintain implementation schedule. (8) ILS funding profile reflects the need for supporting the new A and B kits by the stand up of a P-8A retrofit support team. (9) Other Support funding profile reflects the need for supporting the new A and B kits by the stand up of a P-8A retrofit support team. (10) Aircraft inductions for ECP-6 installations will be aligned with P-8A depot activities three months prior to ECP-6 kit deliveries to allow for aircraft preparation work to occur prior to install. Administrative and Production Leadtimes reduced in FYDP due to contract efficiencies.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series				Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	6.259	6.945	0.000	6.945	6.362	8.147	8.255	8.478	110.130	154.576
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	6.259	6.945	0.000	6.945	6.362	8.147	8.255	8.478	110.130	154.576
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	6.259	6.945	0.000	6.945	6.362	8.147	8.255	8.478	110.130	154.576
<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:

OSIP 001-19 provides funding for P-8A Aircraft Systems Upgrades to enable modifications to the aircraft in order to improve aircrew safety, modernize airframe, engine, weapons and stores, and sonobouy launch system performance, and incorporate structural enhancements to resolve readiness, obsolescence, and safety issues required for the airframe to reach its designed/extended service life. Funding is provided for airframe modifications to support changes in Size, Weight, Power, and Cooling (SWAP-C) requirements of aircraft and mission systems equipment or as part of the Rapid Capability Insertion (RCI) process, to incorporate Quick Reaction Capabilities (QRC) both on a temporary and permanent basis, and to incorporate aircraft and propulsion systems related service bulletins and technical directives.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

No major development milestones. The changes identified will utilize the Engineering Change Proposal (ECP) process.

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0586 / P-8 Series					Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)				
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Aircraft Systems Upgrade 2 - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.100	2 / 0.102	3 / 0.156	110 / 5.610	117 / 5.968	
1.1.2) P-360 - Organic ^(*)	- / -	- / -	5 / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.488	
2.1.1) J8 Harness - Organic ^(*)	- / -	- / -	14 / 0.224	14 / 0.228	- / -	14 / 0.228	14 / 0.233	14 / 0.237	13 / 0.225	- / -	- / -	69 / 1.147	
2.1.3) P-360 Modification Sensors - Organic ^(*)	- / -	- / -	30 / 1.447	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 1.447	
2.1.4) P-360 Mod Repeaters - Organic ^(*)	- / -	- / -	10 / 0.065	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.065	
2.1.5) P-360 Mod DSAC - Organic ^(*)	- / -	- / -	5 / 0.325	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.325	
2.1.6) P-360 Modification - NonOrganic ⁽¹¹⁾ Installation 1 of 4	- / -	- / -	5 / 0.488	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.488	
2.1.7) Aircraft Systems Upgrade - NonOrganic Installation 2 of 4	- / -	- / -	2 / 0.150	3 / 0.230	- / -	3 / 0.230	3 / 0.234	12 / 0.954	20 / 1.620	20 / 1.620	57 / 4.702	117 / 9.510	
2.1.8) Aircraft System Upgrade 2 - NonOrganic Installation 3 of 4	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	117 / 17.550	117 / 17.550	
2.1.9) Engine Fifth Stage - Organic ^(*)	- / -	- / -	10 / 0.500	50 / 2.550	- / -	50 / 2.550	57 / 2.964	58 / 3.074	- / -	- / -	- / -	175 / 9.088	
2.1.10) Lower Lobe Vibration - NonOrganic Installation 4 of 4	- / -	- / -	10 / 0.185	14 / 0.264	- / -	14 / 0.264	14 / 0.269	20 / 0.392	20 / 0.400	19 / 0.387	- / -	97 / 1.897	
2.1.11) Raked Wing Tip - Organic ^(*)	- / -	- / -	- / -	12 / 0.097	- / -	12 / 0.097	12 / 0.099	12 / 0.101	12 / 0.103	12 / 0.105	183 / 1.610	243 / 2.115	
2.1.12) Leading Edge Slat Redesign - Organic ^(*)	- / -	- / -	- / -	6 / 0.031	- / -	6 / 0.031	6 / 0.031	6 / 0.032	6 / 0.032	6 / 0.033	93 / 0.512	123 / 0.671	
2.1.13) Oil Scavenge Tube - Organic ^(*)	- / -	- / -	- / -	30 / 0.064	- / -	30 / 0.064	33 / 0.072	42 / 0.093	- / -	- / -	- / -	105 / 0.229	
2.1.14) IDG Oil Tube - Organic ^(*)	- / -	- / -	- / -	10 / 0.033	- / -	10 / 0.033	11 / 0.037	15 / 0.052	16 / 0.057	19 / 0.068	19 / 0.068	90 / 0.315	
2.1.15) Starter V-Band Clamp - Organic ^(*)	- / -	- / -	- / -	10 / 0.023	- / -	10 / 0.023	11 / 0.026	16 / 0.039	18 / 0.045	21 / 0.053	5 / 0.012	81 / 0.198	
2.1.16) T/R Blanket Interference - Organic ^(*)	- / -	- / -	- / -	7 / 0.007	- / -	7 / 0.007	8 / 0.008	12 / 0.013	14 / 0.016	17 / 0.020	- / -	58 / 0.064	
2.2.1) Installation Equipment N/R - Organic ^(*)	- / -	- / -	- / 1.612	- / 0.252	- / -	- / 0.252	- / 0.270	- / 0.699	- / 1.491	- / 0.901	- / 22.053	- / 27.278	
Subtotal: Procurement	- / 0.000	- / -	- / 5.484	- / 3.779	- / -	- / 3.779	- / 4.243	- / 5.786	- / 4.091	- / 3.343	- / 52.117	- / 78.843	
Support													
3.2) Data	- / -	- / -	- / 0.075	- / 0.075	- / -	- / 0.075	- / 0.055	- / 0.100	- / 0.116	- / 0.100	- / 1.500	- / 2.021	
3.5) ILS	- / -	- / -	- / 0.100	- / 0.150	- / -	- / 0.150	- / 0.140	- / 0.127	- / 0.140	- / 0.101	- / 3.126	- / 3.884	
3.6) Other Support	- / -	- / -	- / 0.300	- / 0.480	- / -	- / 0.480	- / 0.449	- / 0.552	- / 0.536	- / 0.584	- / 7.141	- / 10.042	
Subtotal: Support	- / 0.000	- / -	- / 0.475	- / 0.705	- / -	- / 0.705	- / 0.644	- / 0.779	- / 0.792	- / 0.785	- / 11.767	- / 15.947	
Installation													
Installation 1 of 4: P-360 Modification	- / -	- / -	- / -	- / 1.217	- / 0.000	- / 1.217	- / -	- / -	- / -	- / -	- / 0.000	- / 1.217	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0586 / P-8 Series					Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 2 of 4: Aircraft Systems Upgrade	- / -	- / -	- / -	- / 0.250	- / 0.000	- / 0.250	- / 0.383	- / 0.390	- / 1.590	- / 2.700	- / 9.872	- / 15.185	
Installation 3 of 4: Aircraft System Upgrade 2	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.632	- / 35.632	
Installation 4 of 4: Lower Lobe Vibration	- / -	- / -	- / 0.300	- / 0.994	- / 0.000	- / 0.994	- / 1.092	- / 1.192	- / 1.782	- / 1.650	- / 0.742	- / 7.752	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.300	- / 2.461	- / -	- / 2.461	- / 1.475	- / 1.582	- / 3.372	- / 4.350	- / 46.246	- / 59.786	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	6.259	6.945	0.000	6.945	6.362	8.147	8.255	8.478	110.130	154.576	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0586 / P-8 Series											Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 1 of 4: P-360 Modification																																
Manufacturer Information																																
Manufacturer Name: BOEING													Manufacturer Location: Seattle, WA																			
Administrative Leadtime (in Months): 5													Production Leadtime (in Months): 8																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Feb 2019																										
Delivery Dates						Oct 2019																										
Installation Information																																
Method of Implementation: Contractor Field Mod Team:: Installation Name: P-360 Modification																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -		- / -		- / -		5 / 1.217		0 / 0.000		5 / 1.217		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 1.217						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -		- / -		- / -		5 / 1.217		0 / 0.000		5 / 1.217		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 1.217						
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	
Out	-	-	-	-	-	-	-	-	-	-	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 4: Aircraft Systems Upgrade																															
Manufacturer Information																															
Manufacturer Name: TBD- Aircraft Systems Upgrade															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 5															Production Leadtime (in Months): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Feb 2019				Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024					
Delivery Dates						Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2023					
Installation Information																															
Method of Implementation: Contractor Field MOD Team:: Installation Name: Aircraft Systems Upgrade																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		2 / 0.250		0 / 0.000		2 / 0.250		- / -		- / -		- / -		- / -		- / -		0 / 0.000		2 / 0.250						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		3 / 0.383		- / -		- / -		- / -		- / -		0 / 0.000		3 / 0.383						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		3 / 0.390		- / -		- / -		- / -		0 / 0.000		3 / 0.390						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 1.590		- / -		- / -		0 / 0.000		12 / 1.590						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 2.700		0 / 0.000		20 / 2.700						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 2.564		20 / 2.564						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		57 / 7.308		57 / 7.308						
Total		- / -	- / -		- / -		2 / 0.250		0 / 0.000		2 / 0.250		3 / 0.383		3 / 0.390		12 / 1.590		20 / 2.700		77 / 9.872		117 / 15.185								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	5	5	5	5	77	117
Out	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	1	1	-	1	1	3	3	3	3	5	5	5	82	117

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 4: Aircraft System Upgrade 2																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Field Mod Team:: Installation Name: Aircraft System Upgrade 2																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		117 / 35.632		117 / 35.632					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		117 / 35.632		117 / 35.632					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	117	117

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0586 / P-8 Series										Modification Number / Title: 4 / P-8A Aircraft Systems (OSIP 001-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 4: Lower Lobe Vibration																															
Manufacturer Information																															
Manufacturer Name: TBD- Lower Lobe Vibration															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates						Jun 2019				Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Lower Lobe Vibration																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		4 / 0.300		6 / 0.459		0 / 0.000		6 / 0.459		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.759								
FY 2020		- / -	- / -		- / -		7 / 0.535		0 / 0.000		7 / 0.535		7 / 0.546		- / -		- / -		- / -		0 / 0.000		14 / 1.081								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		7 / 0.546		7 / 0.556		- / -		- / -		0 / 0.000		14 / 1.102								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		8 / 0.636		12 / 0.972		- / -		0 / 0.000		20 / 1.608								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.810		10 / 0.825		0 / 0.000		20 / 1.635								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.825		9 / 0.742		19 / 1.567								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		4 / 0.300		13 / 0.994		0 / 0.000		13 / 0.994		14 / 1.092		15 / 1.192		22 / 1.782		20 / 1.650		9 / 0.742		97 / 7.752								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	4	4	3	3	4	3	4	4	4	6	6	5	5	5	5	5	5	9	97
Out	-	-	-	-	-	-	-	-	2	2	3	3	3	4	4	3	3	4	3	4	4	4	6	6	5	5	5	5	5	14	97
Footnotes: ⁽¹¹⁾ All P-360 Kit Buys will be installed on five Aircraft. There are six Sensors and two Repeaters per Aircraft.																															

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: N/A				Other Related Program Elements: 0604376M, 0604270N				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	120.453	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	380.263
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	120.453	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	380.263
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	120.453	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	380.263
<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: This line item funds modification efforts for the System of Systems (SoS) and Family of Systems (FoS) that support the Marine Air Ground Task Force Electronic Warfare (MAGTF EW) mission. These SoS and FoS are designed to support improved capabilities to address existing and emerging threats and close gaps in MAGTF EW sufficiency and integration in the EW arena. These capabilities are designed for carriage on an expansive variety of organic air and ground MAGTF assets and include: Collaborative Electronic Attack (EA)/EW Battle Management, EW Services Architecture, and Intrepid Tiger series. MAGTF EW will support procurement of new technologies and equipment as needed to combat emerging EW technologies and systems.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation			
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: N/A			Other Related Program Elements: 0604376M, 0604270N			
Line Item MDAP/MAIS Code: N/A									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / INTREPID TIGER II SERIES (AN/ALQ-231) (OSIP 010-13) (RELIABILITY / MISSION CAPABILITY)				- / 116.721	- / 10.111	- / 11.590	- / 26.536	- / 0.000	- / 26.536
P-3a	2 / INACTIVE OSIPS (RELIABILITY / MISSION CAPABILITY)				- / 3.732	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 120.453	- / 10.111	- / 11.590	- / 26.536	- / 0.000	- / 26.536

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / INTREPID TIGER II SERIES (AN/ALQ-231) (OSIP 010-13) (RELIABILITY / MISSION CAPABILITY)				- / 30.922	- / 33.629	- / 24.380	- / 24.865	- / 97.777	- / 376.531
P-3a	2 / INACTIVE OSIPS (RELIABILITY / MISSION CAPABILITY)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.732
P-40	Total Gross/Weapon System Cost				- / 30.922	- / 33.629	- / 24.380	- / 24.865	- / 97.777	- / 380.263

*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 term Electronic Warfare (EW) refers to the use of electromagnetic (EM) energy and Directed Energy (DE) to control the Electromagnetic Spectrum (EMS) or to attack the enemy. EW consists of three divisions: Electronic Attack (EA), Electronic Protect (EP), and Electronic Warfare Support (EWS). Further, some cyber-operations can be enabled by EW operations. Accordingly, the Marine Corps considers the EMS as a war fighting environment that must be fully integrated into the MAGTF Commanders scheme-of-maneuver and concept-of-fires. The concept of operations for MAGTF EW takes advantage of advancements in technology that facilitate integration of airborne and ground-based EW assets to collaboratively interact, providing the MAGTF Commander with the capabilities to control the EMS at the time and place of his/her choosing.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation						Modification Number / Title: 1 / INTREPID TIGER II SERIES (AN/ ALQ-231) (OSIP 010-13)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	116.721	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	376.531
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	116.721	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	376.531
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	116.721	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	376.531
<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: Effort for Intrepid Tiger II (IT II) capability is designed to expand electromagnetic spectrum control, spectrum management, and Electronic Warfare (EW) effectiveness against current targets and to provide adaptability to counter future targets as they emerge. Key to this capability is network accessibility that includes EW Services Architecture derived infrastructure for integration on multiple aviation platforms including any MAGTF tactical fixed-wing, tilt-wing, and rotary-wing. The design includes open architecture-compliant and easily expandable hardware and software. Engineering Change Proposals (ECPs) will be utilized in order to upgrade component technology via Advanced Technology Kits. Advanced Technology Kits will focus on new capability insertion for the Technique Generator, Antennas, Network and EW Services, Interfaces, and other supporting technology. -Technique Generator Upgrades: Will enable new techniques to provide additional capability that counters existing and anticipated threat systems while maintaining an open architecture to allow future counter threat upgrades. -Antenna Upgrades: Will expand transmit and receive frequency coverage to that of current and anticipated threat systems dynamically operating in a broad spectrum. -Network and EW Services Upgrade: Will enable a non-co-located operator access to pod functions and information exchanges via radio signals to enhance operational and tactical flexibility. -Interface Upgrades: Will enable ground and air based users to configure and monitor pod status, operation and effectiveness. -Other Supporting Upgrades: Includes hardware and software components that enable functions of power, cooling, status, control and connectivity as through processors, sensors, radios, radio frequency components and support equipment critical to overall pod and system operation to include techniques, mission planning, operational execution, post-flight analysis and shipping containers. ENGINEERING CHANGES: This AN/ALQ-231 program covers system modifications required to improve reliability/maintainability/availability, enhance mission capability, interface/integrate with evolving electromagnetic spectrum control, spectrum management, and EW systems, and resolve obsolescence issues. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: IT II provides a distributed, networked approach to EW that is designed to increase both organic capability and capacity for the Marine Air Ground Task Force (MAGTF). The IT II Block 1 USMC TACAIR variant((V)1), was approved in early 2012 as a Rapid Deployment Capability (RDC). IT II USMC rotary-wing variant ((V)3), was approved as an RDC in early 2014 with an EOC deployment on UH-1 T/M/S aircraft in 2016. The AN/ALQ-231(V) was designated a Program of Record by PEO(T) May 2017. IT II Block X is a technology upgrade to the IT II (V)1 that will provide counter-radar jamming capability with production start in FY 2021 and an IOC in FY 2023 on MV-22.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation				Modification Number / Title: 1 / INTREPID TIGER II SERIES (AN/ ALQ-231) (OSIP 010-13)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: MULTIPLE PLATFORMS				Modification Type: RELIABILITY / MISSION CAPABILITY				Related RDT&E PEs: 0604376M, 0604270N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: INTREPID TIGER II SERIES (AN/ALQ-231) (OSIP 010-13)													
B Kits													
Recurring													
2.1.1) AN/ALQ-231(V)3 (Rotary Wing) - Organic ⁽¹⁾	16 / 16.992	9 / 8.378	9 / 8.967	20 / 20.126	- / -	20 / 20.126	2 / 2.053	- / -	- / -	- / -	- / -	56 / 56.516	
2.1.2) DF Arrays - Organic ⁽²⁾	8 / 1.446	2 / 0.520	6 / 1.158	22 / 4.194	- / -	22 / 4.194	11 / 2.155	- / -	- / -	- / -	- / -	49 / 9.473	
2.1.3) AN/ALQ-231(V)1 BLK X Radar Jammer Upgrade Kits - Organic	- / -	- / -	- / -	- / -	- / -	- / -	6 / 18.191	8 / 24.740	7 / 22.080	7 / 22.522	26 / 87.718	54 / 175.251	
2.1.4) Archived Mods - Organic	- / 35.267	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.267	
Subtotal: Recurring	- / 53.705	- / 8.898	- / 10.125	- / 24.320	- / -	- / 24.320	- / 22.399	- / 24.740	- / 22.080	- / 22.522	- / 87.718	- / 276.507	
Non-Recurring													
2.2.1) Installation Equipment N/R - Organic	- / 6.683	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.683	
Subtotal: Non-Recurring	- / 6.683	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 6.683	
Subtotal: INTREPID TIGER II SERIES (AN/ALQ-231) (OSIP 010-13)	24 / 60.388	11 / 8.898	15 / 10.125	42 / 24.320	- / -	42 / 24.320	19 / 22.399	8 / 24.740	7 / 22.080	7 / 22.522	26 / 87.718	159 / 283.190	
Subtotal: Procurement, All Modification Items	- / 60.388	- / 8.898	- / 10.125	- / 24.320	- / -	- / 24.320	- / 22.399	- / 24.740	- / 22.080	- / 22.522	- / 87.718	- / 283.190	
Support (All Modification Items)													
3.4) Support Equipment ⁽³⁾	- / 8.336	- / 0.152	- / 0.434	- / 0.685	- / -	- / 0.685	- / 6.683	- / 7.038	- / 0.884	- / 0.899	- / 3.940	- / 29.051	
3.5) ILS ⁽⁴⁾	- / 0.555	- / 0.205	- / 0.354	- / 0.396	- / -	- / 0.396	- / 0.682	- / 0.696	- / 0.710	- / 0.724	- / 3.093	- / 7.415	
3.6) Other Support ⁽⁵⁾	- / 47.442	- / 0.856	- / 0.677	- / 1.135	- / -	- / 1.135	- / 1.158	- / 1.155	- / 0.706	- / 0.720	- / 3.026	- / 56.875	
Subtotal: Support	- / 56.333	- / 1.213	- / 1.465	- / 2.216	- / -	- / 2.216	- / 8.523	- / 8.889	- / 2.300	- / 2.343	- / 10.059	- / 93.341	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	116.721	10.111	11.590	26.536	0.000	26.536	30.922	33.629	24.380	24.865	97.777	376.531	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation	Modification Number / Title: 1 / INTREPID TIGER II SERIES (AN/ ALQ-231) (OSIP 010-13)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: INTREPID TIGER II SERIES (AN/ALQ-231) (OSIP 010-13)		
Footnotes: (1) AN/ALQ-231(V)3 (Rotary Wing) unit cost increases by 1% from FY 2019 to FY 2020(less than standard inflation due to economic order quantity cost savings). (2) DF Array unit cost increase from FY 2020 to FY 2021 is based on contractor estimates to procure QTY 11 in FY 2021. (3) Support Equipment increases from FY 2019 to FY 2020 is to complete all support equipment associated with the final year of production for ALQ-231(V)3. Funding increases in FY 2021 and FY 2022 are for support equipment associated with the procurement of the AN/ALQ-231(V)1 BLK X Radar Jammer beginning in FY 2021. (4) ILS funding increases from FY 2020 to FY 2021 due to additional support required for AN/ALQ-231(V)1 BLK X Radar Jammer production. (5) Other Support increases from FY2019 thru FY2022 for support required at NAWCAD Patuxent River.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation						Modification Number / Title: 2 / INACTIVE OSIPS		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.732
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.732
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.732
<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: Inactive OSIPs prior year totals.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0587 / MAGTF EW for Aviation						Modification Number / Title: 2 / INACTIVE OSIPS			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: EA-6B				Modification Type: RELIABILITY / MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) INACTIVE OSIPS - Organic ^(*) ⁽⁶⁾	- / 3.732	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.732	
<i>Subtotal: Procurement</i>	- / 3.732	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.732	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	3.732	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.732	
Footnotes: ⁽⁶⁾ Updated Prior Years to actuals.													

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0588 / MQ-8 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	48.645	22.593	37.907	34.686	0.000	34.686	40.047	33.791	31.016	31.050	36.111	315.846
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	48.645	22.593	37.907	34.686	0.000	34.686	40.047	33.791	31.016	31.050	36.111	315.846
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	48.645	22.593	37.907	34.686	0.000	34.686	40.047	33.791	31.016	31.050	36.111	315.846
<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 MQ-8 Fire Scout Unmanned Air System provides real-time Intelligence, Surveillance and Reconnaissance (ISR) data to tactical users without the use of manned aircraft or reliance on limited joint theater or national assets. This line item funds improvements through engineering change orders, correction of deficiencies, obsolescence and safety. This includes items such as modernization, modification of payloads/mission systems/Mission Control System (MCS) (also referred to as Ground Control Station), and retrofit of systems/avionics. The program will procure a total of 68 air vehicles (30 MQ-8Bs (7 lost to attrition) and 38 MQ-8Cs) to support Fleet requirements. Current inventory is twenty-three (23) MQ-8B and twenty-two (22) MQ-8C air vehicles. Twenty-three (23) MQ-8B Fire Scout systems are in service, of which twenty-one (21) are available for fleet use. Twenty-two (22) MQ-8C Fire Scouts are in service with eleven (11) additional MQ-8Cs under contract. Twenty-one (21) MQ-8Bs and sixteen (16) MQ-8Cs are located at the Contractor Field Team (CFT) facility at Pt Mugu, CA. Two (2) MQ-8B and six (6) MQ-8C Fire Scouts are at Webster Field, MD. These Operational, Safety and Improvement Programs align to the MQ-8B Initial Operational Capability in 2014 and MQ-8C deliveries that commenced in 2015. The MQ-8 Fire Scout system includes air vehicle(s), payloads (i.e., electro-optical/infra-red/laser designator-range finder, Automated Information System (AIS), voice communications relay, Radar, Weapons and other specialty payloads), MCS (with Tactical Control System and Tactical Common Data Link integrated for interoperability), Unmanned Air Vehicle Common Automatic Recovery System (UCARS) for automatic launch and recovery, training systems, associated spares, and support equipment. The quantities and schedules for MCS and UCARS components are based on host ship requirements, while quantities and schedules for air vehicle components are based on operational deployment plans. The MQ-8 system supports Littoral Combat Ship and/or suitably-equipped air capable ship ISR collection for Navy and urgent operational requirements. Designated service life and average service life remaining are currently being computed via a fatigue life evaluation.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0588 / MQ-8 Series				
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14) (Readiness/Safety/Performance Sustainment)			253	- / 30.013	- / 11.650	- / 20.667	- / 18.086	- / 0.000	- / 18.086
P-3a	2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17) (Readiness/Safety/Performance Sustainment)				- / 7.052	- / 5.821	- / 6.739	- / 6.911	- / 0.000	- / 6.911
P-3a	3 / MQ-8 Payloads (OSIP 010-17) (Readiness/Performance)				- / 11.580	- / 5.122	- / 10.501	- / 9.689	- / 0.000	- / 9.689
P-40	Total Gross/Weapon System Cost				- / 48.645	- / 22.593	- / 37.907	- / 34.686	- / 0.000	- / 34.686
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14) (Readiness/Safety/Performance Sustainment)			253	- / 23.177	- / 13.092	- / 7.022	- / 9.067	- / 5.954	- / 138.728
P-3a	2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17) (Readiness/Safety/Performance Sustainment)				- / 4.782	- / 5.743	- / 3.234	- / 2.570	- / 2.522	- / 45.374
P-3a	3 / MQ-8 Payloads (OSIP 010-17) (Readiness/Performance)				- / 12.088	- / 14.956	- / 20.760	- / 19.413	- / 27.635	- / 131.744
P-40	Total Gross/Weapon System Cost				- / 40.047	- / 33.791	- / 31.016	- / 31.050	- / 36.111	- / 315.846
*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: FY20 funds improvements via engineering change orders, for correction of deficiencies, obsolescence and safety. This includes correction of deficiencies found during operational use and deployments, improvements for maintainability and reliability, safety corrections, Radar/other special payloads, Mission Control System (MCS), and emerging requirements and retrofit of capabilities procured post air vehicle delivery. Budget reflects MQ-8Cs, procurements starting in FY12, being transitioned to fleet service.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code: 253					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	30.013	11.650	20.667	18.086	0.000	18.086	23.177	13.092	7.022	9.067	5.954	138.728
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	30.013	11.650	20.667	18.086	0.000	18.086	23.177	13.092	7.022	9.067	5.954	138.728
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	30.013	11.650	20.667	18.086	0.000	18.086	23.177	13.092	7.022	9.067	5.954	138.728
<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 Correction of Deficiencies (COD) Operational, Safety and Improvement Program (OSIP) provides resources to correct MQ-8 Air Vehicle deficiencies resulting from readiness, obsolescence, safety and Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. It also provides for Pre-Planned Product Improvement (P3I) efforts that will improve and modernize system performance, reliability, and maintainability of sensors, avionics, and airframe components to support Intelligence, Surveillance, and Reconnaissance collection for both Navy and urgent operational requirements. In order to meet emerging deficiencies in the MQ-8B and MQ-8C aircraft, integrated systems and trainers must be modified when critical corrections / changes are identified. Funds will be used to incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve operations. Funding supports the upgrade of the communication radio set with the ARC-210 1939A variant, which supports crypto compatibility required by FY21. Modifications for the MQ-8 aircraft include, but are not limited to: MQ-8B Radar, VORTEX relocation, hot weather modifications, blades, engines, control rods, heavy gauge wiring, engine accelerometers, optical tracker cable, navigation lights, corrosion prevention, light weight doors, Unmanned Aerial Vehicle Common Automated Recovery System (UCARS), lithium battery, MQ-8 windscreen, MQ-8 airframe structure, MQ-8 pitot tubes, ARC-210 radios, Tactical Common Data Link, shipboard interface system, MQ-8 common avionics, software, cyber security, network interfaces, processor upgrades, System Integration Lab (SIL) and Hardware-in-the-Loop (HITL) enhancements, Windows 10 transition, maintenance device updates, and other related systems. The FY20 budget focus includes dual UCARS, the top safety priority for the MQ-8, and MQ-8B radar, an essential warfighter capability required by the fleet. This OSIP provides funds to support modifications to address safety and readiness issues and will be depot-level, performed by Fleet Readiness Centers, contractor artisans, contractor field modification teams, and/or organic support and the establishment of Organic Depot Capability for Core Repairables. Coincident with the MQ-8B deployment on the Littoral Combat Ship (LCS) class, a top ten safety issue list was developed during the program's System Safety Working Group. As solutions become available, aircraft modifications will be implemented to address critical safety issues. Identified issues include icing detection/avoidance, ground handling, airspace awareness, Global Positioning System vulnerabilities, and cyber security. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MQ-8B Initial Operational Capability (IOC) occurred in FY14. The MQ-8B has deployed since FY10 to support Intelligence, Surveillance and Reconnaissance Task Force, Joint Urgent Operational Need, and is embarked in the second operational deployment aboard the LCS class as part of the Surface Warfare Mission Package.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code: 253						
Models of Systems Affected: MQ-8B/C			Modification Type: Readiness/Safety/Performance Sustainment					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1) Radar (MQ-8B) Wholeness - NonOrganic ⁽¹⁾ Installation 1 of 9	14 / 2.298	- / -	- / -	9 / 1.590	- / -	9 / 1.590	- / -	- / -	- / -	- / -	- / -	23 / 3.888	
1.2) Hot Weather Scoops/Delta Mods (MQ-8B) - NonOrganic Installation 2 of 9	7 / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.074	
1.3) VORTEX Relocation (MQ-8B) - NonOrganic Installation 3 of 9	24 / 0.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.225	
1.4) Heavy Gauge Wiring (MQ-8B) - Organic ^(*)	- / -	- / -	23 / 0.345	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.345	
1.5) Navigation Lights (MQ-8C) - Organic ^(*)	- / -	25 / 0.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 0.223	
1.6) Aft Faraday Cage Connectors (MQ-8C) - NonOrganic Installation 4 of 9	- / -	- / -	17 / 0.017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.017	
1.7) Connector REFDES Labels (MQ-8C) - Organic ^(*)	- / -	17 / 0.017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.017	
1.8) Corrosion Prevention (MQ-8C) - NonOrganic Installation 5 of 9	- / -	2 / 0.005	17 / 0.043	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.048	
1.9) UHF Antenna Screws (MQ-8C) - Organic ^(*)	- / -	17 / 0.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.002	
1.10) Accelerometers (MQ-8C) - Organic ^(*)	19 / 0.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 0.040	
1.11) UCARS Redundancy - NonOrganic Installation 6 of 9	- / -	- / -	- / -	10 / 0.210	- / -	10 / 0.210	20 / 0.420	22 / 0.460	2 / 0.042	7 / 0.147	- / -	61 / 1.279	
1.12) Processor Upgrade - NonOrganic ⁽²⁾ Installation 7 of 9	- / -	- / -	- / -	2 / 0.040	- / -	2 / 0.040	20 / 0.412	20 / 0.424	15 / 0.327	- / -	4 / 0.087	61 / 1.290	
1.13) Drive Belts - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.069	- / -	- / -	- / -	- / -	23 / 0.069	
1.14) Wiring Configuration - NonOrganic Installation 8 of 9	- / -	- / -	- / -	- / -	- / -	- / -	11 / 0.220	- / -	- / -	- / -	- / -	11 / 0.220	
2.1.1) Radar (MQ-8B) Wholeness - Organic ^(*)	4 / 0.373	3 / 0.342	4 / 4.182	- / -	- / -	- / -	- / -	- / -	- / -	6 / 6.300	5 / 5.227	22 / 16.424	
2.1.2) ARC-210 Upgrade (MQ-8B) - Organic ^(*)	7 / 1.153	5 / 1.227	11 / 1.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 4.195	
2.1.3) VORTEX (MQ-8B) - Organic ^(*)	- / -	- / -	4 / 0.600	5 / 0.773	- / -	5 / 0.773	4 / 0.637	- / -	- / -	- / -	- / -	13 / 2.010	
2.1.4) IFF APX-118 to APX-123 Upgrade (MQ-8B) - Organic ^(*)	24 / 0.744	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 0.744	
2.1.5) Automatic Identification System (MQ-8B/C) - Organic ^(*)	39 / 0.310	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 0.310	
2.1.6) Lithium Ion Battery Upgrade (MQ-8B/C) - Organic ^(*)	- / -	- / -	40 / 1.080	14 / 0.392	- / -	14 / 0.392	7 / 0.204	- / -	- / -	- / -	- / -	61 / 1.676	
2.1.7) UCARS Redundancy Retrofit (MQ-8C) - Organic ^(*)	- / -	- / -	- / -	18 / 3.000	- / -	18 / 3.000	21 / 3.605	10 / 1.710	10 / 1.710	2 / 0.342	- / -	61 / 10.367	
2.1.8) Processor Upgrade (MQ-8B/MCS) - Organic ^(*)	- / -	- / -	- / -	2 / 0.500	- / -	2 / 0.500	30 / 7.725	17 / 4.505	12 / 3.270	- / -	- / -	61 / 16.000	

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0588 / MQ-8 Series				Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code: 253						
Models of Systems Affected: MQ-8B/C			Modification Type: Readiness/Safety/Performance Sustainment					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
2.1.9) Windscreen (MQ-8C) - NonOrganic Installation 9 of 9	- / -	- / -	10 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.300	
2.1.10) TCDL Radome - Organic(*)	- / -	- / -	- / -	2 / 0.012	- / -	2 / 0.012	- / -	- / -	- / -	- / -	- / -	2 / 0.012	
2.1.12) Prior Year Modifications - Organic(*)	121 / 6.328	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	121 / 6.328	
2.2.1) N/R for MQ-8 Modifications - Organic(*)	- / 14.923	- / 2.165	- / 5.576	- / 5.948	- / -	- / 5.948	- / 2.919	- / 1.745	- / -	- / -	- / -	- / 33.276	
Subtotal: Procurement	- / 26.468	- / 3.981	- / 13.958	- / 12.465	- / -	- / 12.465	- / 16.211	- / 8.844	- / 5.349	- / 6.789	- / 5.314	- / 99.379	
Support													
3.1) ILS ⁽³⁾	- / 1.024	- / 0.777	- / 0.523	- / 0.670	- / -	- / 0.670	- / 0.758	- / 0.372	- / 0.111	- / 0.654	- / 0.075	- / 4.964	
3.2) Data	- / 0.605	- / 0.451	- / 0.462	- / 0.467	- / -	- / 0.467	- / 0.480	- / 0.416	- / 0.135	- / 0.150	- / 0.050	- / 3.216	
3.3) Training Equipment ⁽⁴⁾	- / 0.094	- / 3.317	- / 2.100	- / 1.761	- / -	- / 1.761	- / 1.028	- / 0.443	- / 0.124	- / 0.398	- / 0.050	- / 9.315	
3.4) Support Equipment	- / 0.240	- / 0.211	- / 1.125	- / 1.031	- / -	- / 1.031	- / 1.334	- / 0.997	- / 0.132	- / -	- / -	- / 5.070	
3.5) Other Support	- / 0.992	- / 1.701	- / 1.462	- / 0.768	- / -	- / 0.768	- / 1.180	- / 1.315	- / 0.407	- / 0.755	- / -	- / 8.580	
Subtotal: Support	- / 2.955	- / 6.457	- / 5.672	- / 4.697	- / -	- / 4.697	- / 4.780	- / 3.543	- / 0.909	- / 1.957	- / 0.175	- / 31.145	
Installation													
Installation 1 of 9: Radar (MQ-8B) Wholeness	- / 0.217	- / 0.222	- / -	- / -	- / -	- / -	- / 1.590	- / -	- / -	- / -	- / 0.000	- / 2.029	
Installation 2 of 9: Hot Weather Scoops/Delta Mods (MQ-8B)	- / 0.373	- / 0.225	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.598	
Installation 3 of 9: VORTEX Relocation (MQ-8B)	- / -	- / 0.740	- / 0.800	- / 0.720	- / 0.000	- / 0.720	- / 0.300	- / -	- / -	- / -	- / 0.000	- / 2.560	
Installation 4 of 9: Aft Faraday Cage Connectors (MQ-8C)	- / -	- / -	- / -	- / 0.204	- / 0.000	- / 0.204	- / -	- / -	- / -	- / -	- / 0.000	- / 0.204	
Installation 5 of 9: Corrosion Prevention (MQ-8C)	- / -	- / 0.025	- / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.232	
Installation 6 of 9: UCARS Redundancy	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.216	- / 0.432	- / 0.484	- / 0.045	- / 0.315	- / 1.492	
Installation 7 of 9: Processor Upgrade	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.020	- / 0.212	- / 0.218	- / 0.213	- / 0.056	- / 0.719	
Installation 8 of 9: Wiring Configuration	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.060	- / 0.061	- / 0.062	- / 0.063	- / 0.094	- / 0.340	
Installation 9 of 9: Windscreen (MQ-8C)	- / -	- / -	- / 0.030	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.030	
Subtotal: Installation	- / 0.590	- / 1.212	- / 1.037	- / 0.924	- / -	- / 0.924	- / 2.186	- / 0.705	- / 0.764	- / 0.321	- / 0.465	- / 8.204	
Total													
Total Cost (Procurement + Support + Installation)	30.013	11.650	20.667	18.086	0.000	18.086	23.177	13.092	7.022	9.067	5.954	138.728	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 1 of 9: Radar (MQ-8B) Wholeness																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (in Months): 6															Production Leadtime (in Months): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Mar 2020																					
Delivery Dates										Sep 2020																					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Radar (MQ-8B) Wholeness																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		7 / 0.217		7 / 0.222		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		14 / 0.439					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		9 / 1.590		- / -		- / -		- / -		0 / 0.000		9 / 1.590					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		7 / 0.217		7 / 0.222		- / -		- / -		- / -		- / -		- / -		9 / 1.590		- / -		- / -		- / -		0 / 0.000		23 / 2.029					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	1	2	2	2	-	-	-	-	-	-	-	-	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Out	2	2	4	3	2	1	-	-	-	-	-	-	-	-	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	23

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 2 of 9: Hot Weather Scoops/Delta Mods (MQ-8B)																															
Manufacturer Information																															
Manufacturer Name: Northrop Grumman Corp - Hot Weather Scoops/Delta Mods (MQ-8B) ⁽⁵⁾															Manufacturer Location: Rancho Bernardo, CA																
Administrative Leadtime (in Months): 0															Production Leadtime (in Months): 0																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: FRC Depot:: Installation Name: Hot Weather Scoops/Delta Mods (MQ-8B)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.373		3 / 0.225		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.598					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		4 / 0.373		3 / 0.225		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		7 / 0.598					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Out	4	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																						
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)												
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																	
Installation 3 of 9: VORTEX Relocation (MQ-8B)																																
Manufacturer Information																																
Manufacturer Name: L-3 (Vortex Relocation))															Manufacturer Location: Salt Lake City, UT																	
Administrative Leadtime (<i>in Months</i>): 1															Production Leadtime (<i>in Months</i>): 7																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates																																
Delivery Dates																																
Installation Information																																
Method of Implementation: FRC Depot/Contractor Field Mod Team:: Installation Name: VORTEX Relocation (MQ-8B)																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		7 / 0.740		7 / 0.800		8 / 0.720		0 / 0.000		8 / 0.720		2 / 0.300		- / -		- / -		- / -		0 / 0.000		24 / 2.560								
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -		7 / 0.740		7 / 0.800		8 / 0.720		0 / 0.000		8 / 0.720		2 / 0.300		- / -		- / -		- / -		0 / 0.000		24 / 2.560								
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	2	2	2	1	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24
Out	-	-	-	4	3	2	2	2	1	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 4 of 9: Aft Faraday Cage Connectors (MQ-8C)																															
Manufacturer Information																															
Manufacturer Name: NGC (Aft Faraday Cage)															Manufacturer Location: Rancho, Bernardo, CA																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019																									
Delivery Dates						Sep 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Aft Faraday Cage Connectors (MQ-8C)																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2019		- / -	- / -	- / -	17 / 0.204	0 / 0.000	17 / 0.204	- / -	- / -	- / -	- / -	- / -	0 / 0.000	17 / 0.204																	
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																	
Total		- / -	- / -	- / -	17 / 0.204	0 / 0.000	17 / 0.204	- / -	- / -	- / -	- / -	- / -	0 / 0.000	17 / 0.204																	
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	-	-	5	10	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code: 253																					
Installation 5 of 9: Corrosion Prevention (MQ-8C)																															
Manufacturer Information																															
Manufacturer Name: NGC (Corrosion)													Manufacturer Location: Rancho Bernardo, CA																		
Administrative Leadtime (<i>in Months</i>): 3													Production Leadtime (<i>in Months</i>): 5																		
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates		Jan 2018			Jan 2019																										
Delivery Dates		May 2018			May 2019																										
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Corrosion Prevention (MQ-8C)																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	2 / 0.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	2 / 0.025																		
FY 2019		- / -	- / -	17 / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	17 / 0.207																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	2 / 0.025	17 / 0.207	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	19 / 0.232																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	10	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Out	-	-	-	-	2	-	-	10	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 6 of 9: UCARS Redundancy																															
Manufacturer Information																															
Manufacturer Name: SNC-UCARS Antenna (MQ-8B) ⁽⁶⁾															Manufacturer Location: Sparks, NV																
Administrative Leadtime (in Months): 3															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates										Sep 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: FRC Depot:: Installation Name: UCARS Redundancy																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.216		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.216					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.432		- / -		- / -		- / -		0 / 0.000		20 / 0.432					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		22 / 0.484		- / -		- / -		0 / 0.000		22 / 0.484					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.045		0 / 0.000		2 / 0.045		2 / 0.045					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		7 / 0.315		7 / 0.315		7 / 0.315					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		10 / 0.216		20 / 0.432		22 / 0.484		2 / 0.045		7 / 0.315		61 / 1.492		61 / 1.492					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	-	5	5	5	5	5	5	6	6	-	-	1	1	7	61
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	5	-	5	5	5	5	5	5	6	6	-	-	1	1	7	61

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 7 of 9: Processor Upgrade																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: TBD																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Mar 2020				Mar 2021				Mar 2022				Mar 2023									
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Processor Upgrade																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.020		- / -		- / -		- / -		0 / 0.000		2 / 0.020					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.212		- / -		- / -		0 / 0.000		20 / 0.212					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		20 / 0.218		- / -		0 / 0.000		20 / 0.218					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.213		0 / 0.000		15 / 0.213					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.056		4 / 0.056					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.020		20 / 0.212		20 / 0.218		15 / 0.213		4 / 0.056		61 / 0.719					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	5	5	5	5	5	5	5	5	5	5	5	-	4	61
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	5	5	5	5	5	5	5	5	5	5	5	4	61

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 8 of 9: Wiring Configuration																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: FRC Southwest (NAS North Island, CA)																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates														Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Wiring Configuration																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.060		2 / 0.061		2 / 0.062		2 / 0.063		3 / 0.094		11 / 0.340					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.060		2 / 0.061		2 / 0.062		2 / 0.063		3 / 0.094		11 / 0.340					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	11
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	1	1	-	-	1	4	11

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code: 253																
Installation 9 of 9: Windscreen (MQ-8C)																															
Manufacturer Information																															
Manufacturer Name: NGC (Windscreen)															Manufacturer Location: Rancho Bernardo, CA																
Administrative Leadtime (<i>in Months</i>): 3															Production Leadtime (<i>in Months</i>): 6																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Jan 2019																									
Delivery Dates						Jun 2019																									
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: Windscreen (MQ-8C)																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		10 / 0.030		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.030						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		10 / 0.030		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		10 / 0.030						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	-	-	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Footnotes: (1) C.E. 1.1.1.1 Funding supports the procurement of nine MQ-8B radar's to complete the remaining radar requirement for this variant. (2) C.E.: 1.1.1.12, FY20 procures two (2) A-kits for Processor Upgrade Val/Ver.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0588 / MQ-8 Series	Modification Number / Title: 1 / MQ-8 Correction of Deficiencies and Modernization (OSIP 021-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code: 253
(3) Due to the number of ECPs starting and stopping between FY20 to FY24, the Support cost elements (ILS, Data, Training Equipment, Support Equipment, and Other Support) cannot be analyzed at standard phasing levels. (4) Training supports update of the Avionics Maintenance Trainer (AMT) and Combined Maintenance Trainer (CMT) training devices to ensure provided training aligns with the same configuration of fleet air vehicles. (5) Original kits procured in the prior years. (6) For SNC-UCARS Antenna, June Deliveries planned will provide the materials from the hardware manufacturer. Further steps in assembling into Depot kits will transpire over the following 16 weeks and result in Depot Installation in the fiscal year following.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7.052	5.821	6.739	6.911	0.000	6.911	4.782	5.743	3.234	2.570	2.522	45.374
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	7.052	5.821	6.739	6.911	0.000	6.911	4.782	5.743	3.234	2.570	2.522	45.374
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	7.052	5.821	6.739	6.911	0.000	6.911	4.782	5.743	3.234	2.570	2.522	45.374
<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 Mission Control System (MCS) Operational, Safety and Improvement Program (OSIP) addresses modifications to MCS for hardware. Funding supports the External Communications (EXCOMM) rack and the Unmanned Aerial Vehicle Common Automatic Recovery System (UCARS) obsolete components which require replacement. Non-recurring engineering has been completed to support production. This effort procures the kits required and funds the retrofit of shipboard MD-4 MCS equipment onboard Littoral Combat Ships (LCS), other suitably equipped air-capable ships, and shore-based MD-4 MCS equipment installed at fleet locations. Funding supports the upgrade of the communication radio set with the ARC-210 1939A variant, which supports crypto compatibility required by FY21. Additionally, the radio OEM (Rockwell Collins) completes production and procurement of the ARC-210 1939A variant in FY21. The program must put 16 more shipsets (four radios per shipset) on contract with FY19 and following funding. This budget accelerates MCS upgrades to reduce cyber security vulnerabilities, reduces obsolescence, and supports fleet requirements. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: MQ-8B Initial Operational Capability (IOC) occurred in FY14. The MQ-8B has deployed since FY10 to support Intelligence, Surveillance and Reconnaissance (ISR) Task Force, Joint Urgent Operational Need, and is embarked in the second operational deployment aboard the Littoral Combat Ship (LCS) class as part of the Surface Warfare Mission Package. MCS and UCARS requirements were aligned from OSIP 021-14 to OSIP 009-17 in PB17.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: [No Model Specified]				Modification Type: Readiness/Safety/Performance Sustainment				Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) MCS Upgrade Console Phase I - Organic ^(*)	2 / 2.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.800	
1.1.2) MCS Upgrade EXCOMM Phase II (Ship Based) - NonOrganic <i>Installation 1 of 2</i>	- / -	3 / 2.793	4 / 3.493	4 / 3.550	- / -	4 / 3.550	2 / 2.192	3 / 2.884	1 / 1.016	1 / 1.059	- / -	18 / 16.987	
1.1.3) MCS Upgrade EXCOMM Phase II (Land Based) - NonOrganic <i>Installation 2 of 2</i>	4 / 3.384	1 / 0.931	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 4.315	
1.1.4) MCS ARC-210 Upgrade - Organic ^(*)	- / -	1 / 0.327	5 / 1.131	5 / 1.131	- / -	5 / 1.131	6 / 1.357	- / -	- / -	- / -	- / -	17 / 3.946	
1.2.1) N/R for MCS Modifications - Organic ^(*)	- / 0.589	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.589	
Subtotal: Procurement	- / 6.773	- / 4.051	- / 4.624	- / 4.681	- / -	- / 4.681	- / 3.549	- / 2.884	- / 1.016	- / 1.059	- / 0.000	- / 28.637	
Support													
2.1) ILS	- / 0.046	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.046	
2.2) Other Support	- / 0.233	- / 0.110	- / 0.093	- / 0.120	- / -	- / 0.120	- / 0.135	- / 0.139	- / 0.172	- / 0.228	- / 0.480	- / 1.710	
Subtotal: Support	- / 0.279	- / 0.110	- / 0.093	- / 0.120	- / -	- / 0.120	- / 0.135	- / 0.139	- / 0.172	- / 0.228	- / 0.480	- / 1.756	
Installation													
Installation 1 of 2: MCS Upgrade EXCOMM Phase II (Ship Based)	- / -	- / -	- / 1.607	- / 2.110	- / 0.000	- / 2.110	- / 1.098	- / 2.720	- / 2.046	- / 1.283	- / 2.042	- / 12.906	
Installation 2 of 2: MCS Upgrade EXCOMM Phase II (Land Based)	- / -	- / 1.660	- / 0.415	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.075	
Subtotal: Installation	- / 0.000	- / 1.660	- / 2.022	- / 2.110	- / -	- / 2.110	- / 1.098	- / 2.720	- / 2.046	- / 1.283	- / 2.042	- / 14.981	
Total													
Total Cost (Procurement + Support + Installation)	7.052	5.821	6.739	6.911	0.000	6.911	4.782	5.743	3.234	2.570	2.522	45.374	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 2: MCS Upgrade EXCOMM Phase II (Ship Based)																															
Manufacturer Information																															
Manufacturer Name: NAWC-AD - MCS Upgrade EXCOMM Phase II															Manufacturer Location: NAS Patuxent River, MD																
Administrative Leadtime (in Months): 8															Production Leadtime (in Months): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		May 2018				May 2019				May 2020				May 2021				May 2022				May 2023				May 2024					
Delivery Dates		Jan 2019				Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024				Jan 2025					
Installation Information																															
Method of Implementation: Govt Field Mod Team:: Installation Name: MCS Upgrade EXCOMM Phase II (Ship Based)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		3 / 1.607		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		3 / 1.607					
FY 2019		- / -		- / -		- / -		4 / 2.110		0 / 0.000		4 / 2.110		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 2.110					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.098		- / -		- / -		- / -		- / -		0 / 0.000		4 / 1.098					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 2.720		- / -		- / -		- / -		0 / 0.000		2 / 2.720					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		3 / 2.046		- / -		- / -		0 / 0.000		3 / 2.046					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 1.283		0 / 0.000		1 / 1.283					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		1 / 2.042		1 / 2.042					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		3 / 1.607		4 / 2.110		0 / 0.000		4 / 2.110		4 / 1.098		2 / 2.720		3 / 2.046		1 / 1.283		1 / 2.042		18 / 12.906							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	4	-	-	-	4	-	-	-	2	-	-	-	3	-	-	-	1	-	-	1	18
Out	-	-	-	-	-	-	-	2	1	-	-	2	2	-	-	2	2	-	-	2	-	-	-	2	1	-	-	1	-	1	18

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 2 / MQ-8 Mission Control System (MCS) Readiness, Obsolescence and Safety (OSIP 009-17)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 2: MCS Upgrade EXCOMM Phase II (Land Based)																															
Manufacturer Information																															
Manufacturer Name: NAWC-AD															Manufacturer Location: NAS Patuxent River, MD																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		May 2017				May 2018																									
Delivery Dates		Jan 2018				Jan 2019																									
Installation Information																															
Method of Implementation: Govt Field Mod Team:: Installation Name: MCS Upgrade EXCOMM Phase II (Land Based)																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.660		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 1.660					
FY 2018		- / -		- / -		1 / 0.415		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		1 / 0.415					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		4 / 1.660		1 / 0.415		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		5 / 2.075					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
Out	-	-	-	2	2	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	11.580	5.122	10.501	9.689	0.000	9.689	12.088	14.956	20.760	19.413	27.635	131.744
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	11.580	5.122	10.501	9.689	0.000	9.689	12.088	14.956	20.760	19.413	27.635	131.744
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	11.580	5.122	10.501	9.689	0.000	9.689	12.088	14.956	20.760	19.413	27.635	131.744
(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 MQ-8 Payloads Operational, Safety and Improvement Program (OSIP) addresses modifications to the MQ-8 Fire Scout System which add new payloads, such as Radar and the Advanced Precision Kill Weapons System (APKWS) II, and add capability and reliability improvements to existing payloads.

The Radar payload includes the integration of a competitively-selected non-developmental item Radar with the air vehicle, Minotaur data correlation and resource management software and hardware, and Mission Control Station (MCS). This capability will improve the MQ-8 Fire Scout's performance in support of Surface Warfare (SUW) Mission Module for the Littoral Combat Ship (LCS) and urgent operational requirements. Once the hardware and software modifications to the air vehicle and MCS are complete, the MQ-8 Fire Scout Mission System Trainer, Avionics Technicians' Trainer, and Aircraft Mechanics' Trainer will be upgraded to include this capability. Delivered MQ-8C air vehicles will be retrofitted for the upgrades via kits.

There will be future integration of a Link-16 payload to include the integration of a Link-16 terminal hardware with the air vehicle, modification to the Minotaur data correlation and resource management software, modification of the Mission Processor Unit that hosts Minotaur on the air vehicle, and modification of the Mission Control Station (MCS). Link-16 Line of Sight (LOS) capability will disseminate sensor track data to other Link-16 participants contributing to the Common Operational Picture and increasing situational awareness. Additionally, the Link-16 In-Flight Target Update (IFTU) capability will allow for Network Enabled Weapon Targeting (NEW-T) for Over-the-Horizon Targeting (OTH-T). Minotaur software will be used to correlate sensor data and manage the Link-16 network. Non-Recurring Engineering (NRE) for initial Link-16 integration will commence in FY20 for the Link-16 hardware and associated software modification to the MQ-8C air vehicle and MCS. Delivered MQ-8C air vehicles will be retrofitted for the Link-16 upgrades via kits.

There will be future integration of a weapons payload to include transition of the MQ-8B weaponization Rapid Deployment Capability (RDC) hardware and software to the MQ-8C air vehicle. Non-Recurring Engineering (NRE) for initial payloads weapons design and integration study will commence in FY24 for the APKWS II missile and its associated hardware and software modifications to the MQ-8C air vehicle and MCS. NRE to integrate and qualify existing Bell 407 external stores suspension equipment with the MQ-8C Air Vehicle (AV) and retrofit of delivered MQ-8C AVs with Weapons payload upgrades via kits are deferred beyond the FYDP.

There will be future integration of payloads in support of the Mine Countermeasures (MCM) mission module on LCS. Future payloads include the Coastal Battlefield Reconnaissance and Analysis (COBRA) system and the Data Mission Payload (DMP). Future payload integration efforts will be considered when integrating current efforts. Payload requirements were aligned from OSIP 021-14 in PB16 to OSIP 010-17 in PB17.

DEVELOPMENT STATUS AND MAJOR DEVELOPMENT MILESTONES:
Payload Milestones: A maritime Radar has been competitively selected for integration into the MQ-8C Fire Scout System. Completion of development and integration is anticipated in FY20 with a Follow-on Test and Evaluation

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0588 / MQ-8 Series	Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(FOT&E) period starting in 1Q FY21, followed by an Initial Operational Capability (IOC) in 3Q FY21.		
MQ-8 System Milestones: MQ-8B IOC occurred in FY14. The MQ-8B has deployed since FY10 to support Intelligence, Surveillance and Reconnaissance (ISR) Task Force, Joint Urgent Operational Need requirements, and has embarked in the second operational deployment aboard the LCS class as part of the SUW Mission Package.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0588 / MQ-8 Series					Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: [No Model Specified]			Modification Type: Readiness/Performance					Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: MQ-8 Payloads (OSIP 010-17)													
A Kits													
Recurring													
1.1.1) MQ-8C Radar A Kits - NonOrganic ⁽⁷⁾	4 / 2.735	4 / 2.909	4 / 2.735	4 / 3.200	- / -	4 / 3.200	5 / 4.120	5 / 4.245	6 / 5.232	4 / 3.580	- / -	36 / 28.756	
1.1.2) MQ-8C LINK-16 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.130	5 / 0.335	5 / 0.345	26 / 1.944	38 / 2.754	
Subtotal: Recurring	- / 2.735	- / 2.909	- / 2.735	- / 3.200	- / -	- / 3.200	- / 4.120	- / 4.375	- / 5.567	- / 3.925	- / 1.944	- / 31.510	
B Kits													
Recurring													
2.1.1) MQ-8C Radar Upgrade II B Kits - Organic ⁽⁸⁾	4 / 4.637	- / -	4 / 4.885	4 / 5.020	- / -	4 / 5.020	5 / 6.449	5 / 6.627	6 / 8.165	6 / 8.391	2 / 5.600	36 / 49.774	
2.1.2) MQ-8C APKWS - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 8.550	38 / 8.550	
2.1.3) MQ-8C Link-16 - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.400	5 / 0.876	5 / 0.902	26 / 5.083	38 / 7.261	
Subtotal: Recurring	- / 4.637	- / -	- / 4.885	- / 5.020	- / -	- / 5.020	- / 6.449	- / 7.027	- / 9.041	- / 9.293	- / 19.233	- / 65.585	
Non-Recurring													
2.2.1) B-Kits Non-recurring Engineering - Organic	- / 3.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.800	- / -	- / 4.900	
Subtotal: Non-Recurring	- / 3.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.800	- / 0.000	- / 4.900	
Subtotal: MQ-8 Payloads (OSIP 010-17)	8 / 10.472	4 / 2.909	8 / 7.620	8 / 8.220	- / -	8 / 8.220	10 / 10.569	14 / 11.402	22 / 14.608	20 / 15.018	92 / 21.177	186 / 101.995	
Subtotal: Procurement, All Modification Items	- / 10.472	- / 2.909	- / 7.620	- / 8.220	- / -	- / 8.220	- / 10.569	- / 11.402	- / 14.608	- / 15.018	- / 21.177	- / 101.995	
Support (All Modification Items)													
3.1) ILS	- / 0.650	- / 0.720	- / 0.300	- / 0.190	- / -	- / 0.190	- / 0.134	- / 0.372	- / 1.035	- / 0.902	- / 0.500	- / 4.803	
3.2) Data	- / 0.458	- / 0.177	- / 0.267	- / 0.146	- / -	- / 0.146	- / 0.142	- / 0.365	- / 1.145	- / 0.390	- / 1.500	- / 4.590	
3.3) Training Equip.	- / -	- / 0.800	- / 0.050	- / -	- / -	- / -	- / -	- / 0.080	- / 1.014	- / 1.074	- / 0.800	- / 3.818	
3.4) Support Equip.	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.348	- / 0.488	- / 0.116	- / -	- / 0.952	
3.5) Other Support	- / -	- / 0.516	- / 0.684	- / 0.499	- / -	- / 0.499	- / 0.592	- / 1.729	- / 1.621	- / 0.983	- / 0.902	- / 7.526	
Subtotal: Support	- / 1.108	- / 2.213	- / 1.301	- / 0.835	- / -	- / 0.835	- / 0.868	- / 2.894	- / 5.303	- / 3.465	- / 3.702	- / 21.689	
Installation													
Modification Item 1 of 1: MQ-8 Payloads (OSIP 010-17)	- / 0.000	- / 0.000	- / 1.580	- / 0.634	- / 0.000	- / 0.634	- / 0.651	- / 0.660	- / 0.849	- / 0.930	- / 2.756	- / 8.060	
Subtotal: Installation	- / 0.000	- / -	- / 1.580	- / 0.634	- / -	- / 0.634	- / 0.651	- / 0.660	- / 0.849	- / 0.930	- / 2.756	- / 8.060	
Total													

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0588 / MQ-8 Series						Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)			
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: [No Model Specified]			Modification Type: Readiness/Performance				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	11.580	5.122	10.501	9.689	0.000	9.689	12.088	14.956	20.760	19.413	27.635

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0588 / MQ-8 Series										Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)																			
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																								
Modification Item 1 of 1: MQ-8 Payloads (OSIP 010-17)																																							
Manufacturer Information																																							
Manufacturer Name: Leonardo MW - Radar (MQ-8C)															Manufacturer Location: Edinburgh, UK																								
Administrative Leadtime (<i>in Months</i>): 5															Production Leadtime (<i>in Months</i>): 12																								
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024													
Contract Dates		Jul 2018				Dec 2018				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024													
Delivery Dates		Jul 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024				Mar 2025													
Installation Information																																							
Method of Implementation: FY19 NGC/FY20 and out: Depot (FRC):: Installation Name: MQ-8C Radar A Kits																																							
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 1.580		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		4 / 1.580															
FY 2018		- / -		- / -		- / -		4 / 0.634		0 / 0.000		4 / 0.634		- / -		- / -		- / -		- / -		0 / 0.000		4 / 0.634															
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.651		- / -		- / -		- / -		0 / 0.000		4 / 0.651															
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 0.660		- / -		- / -		0 / 0.000		4 / 0.660															
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.849		- / -		0 / 0.000		5 / 0.849															
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.930		0 / 0.000		5 / 0.930															
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.956		6 / 0.956															
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.800		4 / 1.800															
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -															
Total		- / -		- / -		4 / 1.580		4 / 0.634		0 / 0.000		4 / 0.634		4 / 0.651		4 / 0.660		5 / 0.849		5 / 0.930		10 / 2.756		36 / 8.060															
Installation Schedule																																							
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	4	-	-	-	4	-	-	-	4	-	-	-	5	-	-	-	5	-	-	10	36								
Out	-	-	-	-	-	-	-	-	-	1	3	-	4	-	-	-	4	-	-	-	4	-	-	-	5	-	-	-	5	10	36								
Method of Implementation (Organic): MQ-8C LINK-16																														Installation Quantity: 38									
Method of Implementation (Organic): MQ-8C Radar Upgrade II B Kits																														Installation Quantity: 36									

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0588 / MQ-8 Series	Modification Number / Title: 3 / MQ-8 Payloads (OSIP 010-17)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: MQ-8 Payloads (OSIP 010-17)		
Installation Information		
Method of Implementation (Organic): MQ-8C APKWS - Not Installed		Installation Quantity: 38
Method of Implementation (Organic): MQ-8C Link-16		Installation Quantity: 38
Footnotes: ⁽⁷⁾ The Radar A-Kit cost for FY19-FY22 was revised to align with proposed A-Kit costs from the Prime RADAR Integration Phase II proposal (contract in negotiations). The A-Kit cost increased due to the addition of Minotaur hardware to the A-Kit. ⁽⁸⁾ Procurements for FY20, FY21, and FY22 are covered by a current, already negotiated IDIQ contract. This contract includes negotiated IDIQ pricing and may incur additional costs depending on the exchange rate at the time of exercising the order.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					
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: 212												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,412.879	222.524	197.993	325.367	0.000	325.367	332.901	477.442	494.946	489.749	4,027.853	7,981.654
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,412.879	222.524	197.993	325.367	0.000	325.367	332.901	477.442	494.946	489.749	4,027.853	7,981.654
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,412.879	222.524	197.993	325.367	0.000	325.367	332.901	477.442	494.946	489.749	4,027.853	7,981.654
<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:

This line item funds modifications to the Navy's V-22 aircraft. The V-22 is a tilt rotor, Vertical/Short Takeoff and Landing (V/STOL) aircraft for Joint Service application. The Navy acts as the lead service with support from the United States Air Force (USAF) co-located in the V-22 Program Office. The V-22 Program is designed to provide an aircraft to meet the amphibious/vertical assault needs of the United States Marine Corps, the Carrier Onboard Delivery needs of the Navy, and the special operations needs of the USAF and United States Special Operations Command (USSOCOM). The MV-22 variant is replacing the CH-46E in the Marine Corps and the CMV-22 will replace the C-2A in the Navy. The CV-22 variant replaced the MH-53J, and is providing a new capability and augments the MC-130 in the USAF/USSOCOM inventory for special operations infiltration, exfiltration, and resupply missions. The V-22 is capable of flying over 2,100 nautical miles with a single refueling, giving the Services the advantage of a V/STOL aircraft able to rapidly self-deploy to any location in the world. This line item funds modifications in support of the 315 MV-22's in service by end of Fiscal Year (FY) 2019 and will support an additional two (2) MVs aircraft, plus Six (6) CMVs delivered through 2020 for a total of 323 MV/CMVs to be delivered through FY 2020.

The overall goal of the modifications budgeted in FY 2020 is to maintain commonality, implement structural safety and reliability improvements, and improve capability. These modifications will also improve readiness, increase aircraft availability, and decrease operating costs. FY 2020 focus will be on reducing flight hour costs, and improving Time On Wing, as reflected in the Readiness Operational Safety Improvement Program. OSIP 005-20 is established for modifications required for CMV-22 Interoperability.

PB-20 incorporates the Nacelle Improvement effort which will improve and upgrade the Nacelle and bring it to a common configuration. This effort addresses reliability and maintainability degraders, improving Mission Capable rates by 6 to 8 percent and reducing direct maintenance man-hours. PB-20 also prioritizes the Common Configuration -Readiness and Modernization (CC-RAM) effort, as it will return 25 to 30 additional Ready Basic Aircraft to the flight line for tasking and improve Mission Capable rates approximately 15 percent. Nacelle Improvements and CC-RAM are the Marine Corps top two priorities for V-22 Readiness. Funds were realigned from OSIP 11-17 Common Configuration to OSIP 28-12 MV-22 Readiness in order to fund Nacelle Improvement efforts.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy					Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				
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: 212									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 1,161.934	- / 77.616	- / 21.397	- / 9.796	- / 0.000	- / 9.796
P-3a	2 / MV-22 Readiness (OSIP 028-12) (Reliability, Cost-per-flight hour, Reduction in Total Ownership cost)				- / 169.982	- / 49.942	- / 38.914	- / 106.818	- / 0.000	- / 106.818
P-3a	3 / Common Configuration (011-17) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 80.963	- / 80.760	- / 71.040	- / 140.161	- / 0.000	- / 140.161
P-3a	4 / Aerial Refueling (008-18) (Performance, Capability)				- / 0.000	- / 14.206	- / 24.314	- / 0.000	- / 0.000	- / 0.000
P-3a	5 / Avionics Improvements (009-19) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 0.000	- / 0.000	- / 42.328	- / 63.492	- / 0.000	- / 63.492
P-3a	6 / CMV Interoperability 005-20 (Safety, Improved Mission Capability)				- / 0.000	- / 0.000	- / 0.000	- / 5.100	- / 0.000	- / 5.100
P-40	Total Gross/Weapon System Cost				- / 1,412.879	- / 222.524	- / 197.993	- / 325.367	- / 0.000	- / 325.367

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 8.140	- / 4.570	- / 3.278	- / 3.101	- / 0.000	- / 1,289.832
P-3a	2 / MV-22 Readiness (OSIP 028-12) (Reliability, Cost-per-flight hour, Reduction in Total Ownership cost)				- / 146.350	- / 160.010	- / 161.030	- / 151.699	- / 2,012.177	- / 2,996.922
P-3a	3 / Common Configuration (011-17) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 110.654	- / 251.647	- / 272.902	- / 280.100	- / 1,151.229	- / 2,439.456
P-3a	4 / Aerial Refueling (008-18) (Performance, Capability)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 38.520
P-3a	5 / Avionics Improvements (009-19) (Safety, Reliability, Increased Service Life, Improved Mission Capability)				- / 51.461	- / 51.174	- / 52.624	- / 53.924	- / 864.447	- / 1,179.450
P-3a	6 / CMV Interoperability 005-20 (Safety, Improved Mission Capability)				- / 16.296	- / 10.041	- / 5.112	- / 0.925	- / 0.000	- / 37.474
P-40	Total Gross/Weapon System Cost				- / 332.901	- / 477.442	- / 494.946	- / 489.749	- / 4,027.853	- / 7,981.654

*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 2020 funding request was reduced by \$16.240M to account for the availability of prior year execution balances.

OSIP 22-01 - MV-22 Correction of Deficiencies: Provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. FY20 will incorporate upgrades to the Cockpit Voice Recorder and the Iridium Antenna as well as installation of previous kit procurements. In order to meet emerging deficiencies the airframe and integrated systems must be modified as critical corrections/changes are identified. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the MV-22 platform.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey
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: 212		
OSIP 28-12 - This OSIP was established for the correction of readiness degraders impacting V-22 cost per flight hour, Reliability, Maintainability and Availability (RM&A), obsolescence, and reduction of life-cycle costs. In order to meet the goal of increasing readiness, the airframe and integrated systems must be modified as critical RM&A issues are identified. FY20 funds are required to address multiple upgrades including Nacelle Improvements which USMC has identified as a top readiness degrader. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the V-22 Aircraft platform. OSIP 011-17 Common Configuration- Readiness and Modernization (CC-RAM) is the Marine Corps' top priority for MV-22 readiness. Modification of 129 Block B and 124 Block C MV-22B aircraft to a common production configuration in support of improved readiness, achieving common configuration (Deputy Commandant for Aviation Goal), and reducing Life Cycle Cost. The reduction of future Operating and Support costs is achieved by the reduction of National Stock Numbers in the supply system, reduction of training and maintenance tasks in the Intelligent Electronic Technical Manuals, and reduction of Non-Recurring Engineering retrofit costs due to multiple aircraft configurations on future engineering changes. OSIP 008-18 was established for the MV-22 Aerial Refueling System (VARS) Capability. The VARS is an initiative which will deliver the capability to aerial refuel F/A-18, F-35, AV-8B, V-22 and CH-53E aircraft from the V-22. Funding for this OSIP has been removed from this budget in FY 2020 through the FYDP. OSIP 009-19 Avionic Improvements incorporates changes to V-22 Avionics systems. Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrade, and Avionics Interface Units upgrades. Improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), and readiness degrader items will yield a more interoperable and survivable V-22 force to sustain warfighter capability in support of worldwide operations. OSIP 005-20 is established for the modification of delivered CMV-22s for critical interoperability capabilities including Link-16 for Carrier Strike Group/Expeditionary Strike Group (CSG/ESG) interoperability and secure MILSAT connectivity through integration of Mobile Users Objective System (MUOS). FY20 funds are required to begin Non-Recurring engineering for the upgrades to the ARC 210 and MOUS. Also any required modifications for compliance with FAR 121-345/347 for Beyond Line of Sight(BLOS)Air Traffic Control(ATC), Required Navigation Performance/Area Navigation (RNP/RNAV) capabilities, and Terrain Awareness and Warning System (TAWS).		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1,161.934	77.616	21.397	9.796	0.000	9.796	8.140	4.570	3.278	3.101	0.000	1,289.832
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1,161.934	77.616	21.397	9.796	0.000	9.796	8.140	4.570	3.278	3.101	0.000	1,289.832
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1,161.934	77.616	21.397	9.796	0.000	9.796	8.140	4.570	3.278	3.101	0.000	1,289.832
(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:
MV-22 Correction of Deficiencies provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field retrofit. In order to meet emerging deficiencies the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve MV-22 system operations. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the MV-22 platform. This modification program may be required to provide timely remedial action for any aircraft system, component or structure. Funds are used to incorporate ECPs to correct emerging deficiencies of the airframe and integrated systems of the aircraft. AVIONICS: Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrade, and Avionics Interface Units upgrades. As well as Mission System Upgrade and Midwing Processing Unit obsolescence replacement. Software modifications are controlled by the functional requirements document (FRD) and introduced to the fleet for release every two years, or as needed based on emerging fleet requirements. Modifications to the various avionics software configuration items being incorporated into the fleet aircraft also require updates to the Collaborative Automated Maintenance Environment Optimized (CAMEO), Integrated Electronic Technical Manuals (IETMs); and mission planning. Specifically for the mission planning system, the V-22 Unique Planning Component (UPC) for the Joint Mission Planning System (JMPS) must implement frequent software updates in conjunction with production aircraft performance and software changes. Changes to the JMPS UPC in accordance with the FRD must include mission planning specific software regression tests to ensure proper operation and integration with other aircraft UPCs within JMPS. POWER TRANSMISSION AND CONTROL: Changes to the V-22 Power Transmission and Control System will improve reliability and maintainability. Changes to the V-22 Power Transmission and Control System will include: swashplate reliability upgrades, engine gimbal ring/spherical bearing installation revision, updated refuel/defuel valve, bull gear shroud and engine gimbal ring. COCKPIT: Changes to the V-22 cockpit will improve crew safety, mission suitability and overall reliability. Changes to the V-22 cockpit include: night vision goggle compatible hardware, upgraded inertial reels, upgraded pilot and co-pilot restraint system, throttle control lever soft stop modification, and improved rain removal. STRUCTURAL: Structural changes to the V-22 will increase survivability, improve maintainability and aircraft availability, eliminate component interferences, improve suitability and correct safety related issues. Structural changes include: forward sponson fuel bladder access redesign/install powder panels, environmental control unit Ram air barrier filter, avionics left hand mounting tray, aft upper door strut, add manual drive decal, fold blades in high winds and modified trunnion fitting. RELIABILITY & MAINTAINABILITY FIXES: Includes Corrective Action Plans to make the aircraft compliant with Operation Requirements Document requirements. Communication, Navigation & Surveillance/Air Traffic Management (CNS/ATM) Modification to the V-22 will facilitate Federal Aviation Administration and International Civil Aviation Organization standards compliance in support of Next Gen initiatives, such as Automatic Dependent Surveillance - Broadcast, Required Navigation Performance/Area Navigation, Identification Friend or Foe, Modernization and Global Positioning System (GPS) Modernization in relation to Correction of Deficiencies ECPs. Enhanced Crash Survivable Memory Unit (Cockpit Voice Recorder): To protect aircraft flight information and facilitate post-mishap investigations, a crash-survivable recorder capable of recording a/c parametric data and aircrew voice communications.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Iridium Antenna: Iridium Antenna is connected to the Troop Commander Station panel allowing ready access to the antenna by systems/equipment (such as brought on to the MV-22 for mission specific operations. Enables ground forces to have access to Distributed Tactical Communication Systems (DTCS) while aboard MV-22s. ECP-782 Block A to B ALE-47: Add a forward firing ALE-47 dispenser magazine for flares and chaff countermeasures. All Aircraft except one has been upgraded to a Block B configuration. Final ALE-47 installation completed in FY 2019. ECP-860: K-Voice and Data Recorder (KVADR) replaces the Government Furnished Equipment Flight Incident Recorder due to obsolescence issues and diminishing manufacturing sources for parts. Installations for KVADR are Organic. 022-01 ECPs that have completed, but have installs remaining: Ramp Mounted Weapon System (RMWS), Provide an all quadrant Defensive Weapon System for the V-22. Rapid Ground Refueling (RGR): Procured RGR kits for Block A to B aircraft. ECP-708 Block B Upgrades: Upgrade Block A aircraft to Block B due to configuration changes required to meet mission requirements. Changes are associated with the aircraft Propulsion/Drive, Electrical, Avionics, Hydraulics, and Structure/Airframe. The ECPs listed below are migrating to OSIP 009-19 in FY 2019: - Multifunction Display (MFD) and Advanced MFD: or flight displays in cockpit, thirty lb. weight savings, less cooling and power requirements, significant obsolescence avoided, greater pilot display capabilities. - V-22 Integrated Aircraft Survivability Equipment (IASE): Will correct deficiencies of the current RADAR warning system, replace the existing Missile Warning System, implement an active Infra-red countermeasure system, upgrade current countermeasures dispenser and provide integrated threat information on current aircraft main flight displays. - Traffic Collision Avoidance System (TCAS): Procurement of kits and installations of the Honeywell MILACAS-XR TCAS into MCOI-equipped MV-22 Block B and C aircraft. MILACAS-XR is identical to the TCAS system already in use aboard the CV-22, and will advise MV-22 pilots of other air traffic in proximity to the MV-22, as well as resolution advisories of what course to fly to avoid colliding with the threat aircraft. - ECP-Training Equipment: Flight Training Device (FTD) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FTD #1 to reflect most current aircraft configuration as directed by Blue Ribbon Panel. -FLIR: Upgrade the Forward Looking Infrared (FLIR) System Electronics Unit (SEU) with an Enhanced Local Area Processing (ELAP) card to improve visibility for the pilot. The SEU provides digital signal processing of the image obtained via the FLIR optics in the current FLIR unit, and passes the image data to the MV-22 mission computer. -Mission Computer Obsolescence Initiative (MCOI) Retrofit for BLK C: MCOI replaces several components and allows planned capabilities to operate without memory processing power or memory storage. Has a positive Return on Investment compared too many other costs that would be absorbed (avoidance). MCOI kits have been moved to Archives in OSIP 022-01. Migrating to OSIP 009-19 in FY 2020: - Digital Interoperability provides situational awareness, enhanced command and control, remote and operation of payloads, and tracking of Marines and cargo. It also allows for collaboration and cooperation in a Joint environment. Migrating to OSIP 011-17 Common Configuration: Gen 5 ARC-210 radio: provides LOS single-channel voice communication in the 30-88 MHz FM, 118-174 MHz AM/FM, and 225-400 MHz AM/FM bands, as well as LOS Single Channel Ground and Airborne System SINCGARS) and Havequick voice communications and provides the aircrew secure military Ultra High Frequency (UHF) Satellite Communications (SATCOM). Each radio has a notch filter which filters out the commercial 88-108 FM band from interfering with radio communication.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capability				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) BFT II Block C MTX Kits - Organic ^(*)	55 / 0.451	4 / 0.034	4 / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	63 / 0.520
1.1.2) Advanced MFD - NonOrganic Installation 1 of 11	- / -	33 / 0.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 0.825
1.1.3) Block A to B - NonOrganic Installation 2 of 11	27 / 124.687	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 124.687
1.1.4) Blk A to B ALE-47 - NonOrganic Installation 3 of 11	12 / 1.392	6 / 0.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.101
1.1.5) Digital Interoperability - MANGL - NonOrganic Installation 4 of 11	- / -	15 / 5.940	15 / 6.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 11.999
1.1.6) Digital Interoperability - MANGL GFE - Organic ^(*)	- / -	15 / 2.655	15 / 2.715	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 5.370
1.1.7) Enhanced Crash Survivable Memory Unit (Cockpit Voice Recorder) - NonOrganic Installation 5 of 11	147 / 4.489	48 / 1.881	12 / 0.479	50 / 2.035	- / -	50 / 2.035	48 / 1.986	32 / 1.349	- / -	- / -	- / -	337 / 12.219
1.1.8) FLIR ELAP - NonOrganic Installation 6 of 11	50 / 2.609	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	50 / 2.609
1.1.9) Gen 5 Radio ARC 210 - Organic ^(*)	10 / 0.910	5 / 0.463	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.373
1.1.10) Iridium Antenna - NonOrganic Installation 7 of 11	51 / 0.103	48 / 0.099	48 / 0.101	48 / 0.102	- / -	48 / 0.102	48 / 0.105	48 / 0.107	46 / 0.104	- / -	- / -	337 / 0.721
1.1.11) KVADR GFE - Organic ^(*)	241 / 4.392	40 / 0.733	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	281 / 5.125
1.1.12) Rapid Ground Refueling Blk A to B - NonOrganic Installation 8 of 11	18 / 0.059	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 0.059
1.1.13) Ramp Mounted Weapon System - NonOrganic Installation 9 of 11	48 / 1.233	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 1.233
1.1.14) Traffic Collision Avoidance System (TCAS) - NonOrganic Installation 10 of 11	52 / 7.087	20 / 2.798	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 9.885
1.1.15) V-22 IASE CV2 - NonOrganic Installation 11 of 11	48 / 29.772	12 / 7.881	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 37.653
1.1.16) Archived ECPs - Organic ^(*)	5,740 / 401.401	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5,740 / 401.401
1.2.1) Installation Kits N/R - Organic ^(*)	- / 147.555	- / 15.000	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 164.555
2.1.1) Advanced MFD - Organic ^(*)	- / -	33 / 3.363	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 3.363
2.1.2) Archived B Kits - Organic ^(*)	129 / 50.572	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	129 / 50.572
2.2.1) Installation Equipment N/R - Organic ^(*)	- / 0.577	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.577
Subtotal: Procurement	- / 777.289	- / 42.381	- / 11.389	- / 2.137	- / -	- / 2.137	- / 2.091	- / 1.456	- / 0.104	- / -	- / 0.000	- / 836.847

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series				Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capability				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Support													
3.2) Software Modifications	- / 8.632	- / 1.670	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.302	
3.3) Data	- / 1.384	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.384	
3.4) Training Equipment	7 / 223.507	- / 14.490	- / 0.200	- / 0.205	- / -	- / 0.205	- / 0.050	- / 0.025	- / 0.025	- / -	- / -	7 / 238.502	
3.5) Support Equipment	- / 8.488	- / 2.813	- / 3.240	- / 2.227	- / -	- / 2.227	- / 2.014	- / -	- / -	- / -	- / -	- / 18.782	
3.6) ILS	- / 7.097	- / 0.127	- / 0.130	- / 0.132	- / -	- / 0.132	- / 0.135	- / 0.137	- / 0.140	- / -	- / -	- / 7.898	
3.7) Other Support ⁽¹⁾	- / 57.401	- / 9.283	- / 1.805	- / 1.380	- / -	- / 1.380	- / 1.442	- / 0.498	- / 0.508	- / -	- / -	- / 72.317	
3.8) Interim Contractor Support	- / 9.622	- / 0.380	- / 0.280	- / 0.080	- / -	- / 0.080	- / -	- / -	- / -	- / -	- / -	- / 10.362	
<i>Subtotal: Support</i>	- / 316.131	- / 28.763	- / 5.655	- / 4.024	- / -	- / 4.024	- / 3.641	- / 0.660	- / 0.673	- / -	- / 0.000	- / 359.547	
Installation													
<i>Installation 1 of 11:</i> Advanced MFD	- / -	- / -	- / 0.561	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.561	
<i>Installation 2 of 11:</i> Block A to B	- / 59.070	- / 2.220	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 61.290	
<i>Installation 3 of 11:</i> Blk A to B ALE-47	- / -	- / 0.300	- / 0.153	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.453	
<i>Installation 4 of 11:</i> GRP: Digital Interoperability	- / -	- / -	- / 1.170	- / 1.191	- / 0.000	- / 1.191	- / -	- / -	- / -	- / -	- / 0.000	- / 2.361	
<i>Installation 5 of 11:</i> Enhanced Crash Survivable Memory Unit (Cockpit Voice Recorder)	- / 0.836	- / 1.891	- / 0.482	- / 2.045	- / 0.000	- / 2.045	- / 2.001	- / 2.039	- / 2.078	- / 2.688	- / 0.000	- / 14.060	
<i>Installation 6 of 11:</i> FLIR ELAP	- / -	- / 0.616	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.616	
<i>Installation 7 of 11:</i> Iridium Antenna	- / -	- / 0.408	- / 0.391	- / 0.399	- / 0.000	- / 0.399	- / 0.407	- / 0.415	- / 0.423	- / 0.413	- / 0.000	- / 2.856	
<i>Installation 8 of 11:</i> Rapid Ground Refueling Blk A to B	- / 0.083	- / 0.069	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.152	
<i>Installation 9 of 11:</i> Ramp Mounted Weapon System	- / 0.540	- / -	- / 0.060	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.600	
<i>Installation 10 of 11:</i> Traffic Collision Avoidance System (TCAS)	- / 0.815	- / 0.968	- / 0.830	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 2.613	
<i>Installation 11 of 11:</i> GRP: IASE CV2	- / 7.170	- / -	- / 0.706	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 7.876	
<i>Subtotal: Installation</i>	- / 68.514	- / 6.472	- / 4.353	- / 3.635	- / -	- / 3.635	- / 2.408	- / 2.454	- / 2.501	- / 3.101	- / 0.000	- / 93.438	
Total													
Total Cost (Procurement + Support + Installation)	1,161.934	77.616	21.397	9.796	0.000	9.796	8.140	4.570	3.278	3.101	0.000	1,289.832	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 11: Advanced MFD																															
Manufacturer Information																															
Manufacturer Name: Advanced MFD															Manufacturer Location: Redstone, AL																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018																													
Delivery Dates		Oct 2018																													
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Advanced MFD																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		33 / 0.561		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		33 / 0.561						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		33 / 0.561		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		33 / 0.561						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	9	9	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Out	-	-	-	-	-	7	8	9	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 11: Block A to B																															
Manufacturer Information																															
Manufacturer Name: Block A to B															Manufacturer Location: Bell Boeing																
Administrative Leadtime <i>(in Months)</i> : 3															Production Leadtime <i>(in Months)</i> : 18																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Block A to B																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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		26 / 59.070		1 / 2.220		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		27 / 61.290							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		26 / 59.070		1 / 2.220		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		27 / 61.290							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Out	23	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 11: Blk A to B ALE-47																															
Manufacturer Information																															
Manufacturer Name: Blk A to B ALE-47															Manufacturer Location: N/A																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018																													
Delivery Dates		Oct 2018																													
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Blk A to B ALE-47																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.300		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.300					
FY 2018		- / -		- / -		6 / 0.153		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		6 / 0.153					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		12 / 0.300		6 / 0.153		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.453					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Out	-	3	3	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)																					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 4 of 11: GRP: Digital Interoperability																															
Manufacturer Information																															
Manufacturer Name: Digital Interoperability - MANGL													Manufacturer Location: N/A																		
Administrative Leadtime (<i>in Months</i>): 6													Production Leadtime (<i>in Months</i>): 7																		
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates		Mar 2018			Mar 2019																										
Delivery Dates		Oct 2018			Oct 2019																										
Installation Information																															
Method of Implementation: Contractor Drive-in Mod:: Installation Name: Digital Interoperability																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018		- / -	- / -	15 / 1.170	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	15 / 1.170																		
FY 2019		- / -	- / -	- / -	15 / 1.191	0 / 0.000	15 / 1.191	- / -	- / -	- / -	- / -	0 / 0.000	15 / 1.191																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	15 / 1.170	15 / 1.191	0 / 0.000	15 / 1.191	- / -	- / -	- / -	- / -	0 / 0.000	30 / 2.361																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	4	3	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30
Out	-	-	-	-	-	-	3	4	4	4	3	4	4	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 11: Enhanced Crash Survivable Memory Unit (Cockpit Voice Recorder)																															
Manufacturer Information																															
Manufacturer Name: Enhanced Crash Survivable Memory Unit															Manufacturer Location: N/A																
Administrative Leadtime (in Months): 14															Production Leadtime (in Months): 17																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022													
Delivery Dates		Jan 2021				Feb 2022				Apr 2022				Apr 2023				Apr 2024													
Installation Information																															
Method of Implementation: Contractor Forced Retrofit of Components:: Installation Name: Enhanced Crash Survivable Memory Unit																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		22 / 0.836		48 / 1.891		12 / 0.482		50 / 2.045		0 / 0.000		50 / 2.045		15 / 0.624		- / -		- / -		- / -		0 / 0.000		147 / 5.878							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		33 / 1.377		15 / 0.642		- / -		- / -		0 / 0.000		48 / 2.019							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 0.504		- / -		- / -		0 / 0.000		12 / 0.504							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		21 / 0.893		29 / 1.217		- / -		0 / 0.000		50 / 2.110							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		19 / 0.861		29 / 1.218		0 / 0.000		48 / 2.079							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		32 / 1.470		0 / 0.000		32 / 1.470							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		22 / 0.836		48 / 1.891		12 / 0.482		50 / 2.045		0 / 0.000		50 / 2.045		48 / 2.001		48 / 2.039		48 / 2.078		61 / 2.688		0 / 0.000		337 / 14.060							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	22	13	13	11	11	3	3	3	3	12	12	13	13	15	11	11	11	15	12	10	11	15	14	12	7	15	14	16	16	-	337
Out	22	13	13	11	11	3	3	3	3	12	12	13	13	15	11	11	11	15	12	10	11	15	14	12	7	15	14	16	16	-	337

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 11: FLIR ELAP																															
Manufacturer Information																															
Manufacturer Name: FLIR ELAP															Manufacturer Location: N/A																
Administrative Leadtime (<i>in Months</i>): 10															Production Leadtime (<i>in Months</i>): 2																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: FLIR ELAP																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -		50 / 0.616		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		50 / 0.616					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		50 / 0.616		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		50 / 0.616					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	13	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50
Out	-	12	13	13	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 11: Iridium Antenna																															
Manufacturer Information																															
Manufacturer Name: Iridium Antenna															Manufacturer Location: Bell Boeing																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Nov 2017				Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022									
Delivery Dates		Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023									
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Iridium Antenna																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		- / -	51 / 0.408		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		51 / 0.408								
FY 2018		- / -	- / -		48 / 0.391		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.391								
FY 2019		- / -	- / -		- / -		48 / 0.399		0 / 0.000		48 / 0.399		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.399								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		48 / 0.407		- / -		- / -		- / -		0 / 0.000		48 / 0.407								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.415		- / -		- / -		0 / 0.000		48 / 0.415								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.423		- / -		0 / 0.000		48 / 0.423								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		46 / 0.413		0 / 0.000		46 / 0.413								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	51 / 0.408		48 / 0.391		48 / 0.399		0 / 0.000		48 / 0.399		48 / 0.407		48 / 0.415		48 / 0.423		46 / 0.413		0 / 0.000		337 / 2.856								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	10	-	337
Out	-	12	13	13	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	10	-	337

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 11: Rapid Ground Refueling Blk A to B																															
Manufacturer Information																															
Manufacturer Name: Rapid Ground Refueling Blk A to B															Manufacturer Location: Bell Boeing																
Administrative Leadtime (in Months): 2															Production Leadtime (in Months): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Rapid Ground Refueling Blk A to B																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		10 / 0.083		8 / 0.069		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.152					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		10 / 0.083		8 / 0.069		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.152					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18
Out	10	-	2	1	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 9 of 11: Ramp Mounted Weapon System																															
Manufacturer Information																															
Manufacturer Name: Ramp Mounted Weapon System															Manufacturer Location: Crane, IN																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 20																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Navy Field Modification:: Installation Name: Ramp Mounted Weapon System																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		18 / 0.540		- / -		30 / 0.060		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.600					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		18 / 0.540		- / -		30 / 0.060		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.600					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	18	-	-	-	-	7	8	8	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48
Out	12	6	-	-	-	7	8	8	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 10 of 11: Traffic Collision Avoidance System (TCAS)																															
Manufacturer Information																															
Manufacturer Name: Traffic Collision Avoidance System															Manufacturer Location: Bell Boeing																
Administrative Leadtime (<i>in Months</i>): 8															Production Leadtime (<i>in Months</i>): 5																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		May 2018																													
Delivery Dates		Oct 2018																													
Installation Information																															
Method of Implementation: Contractor Forced Retrofit of Components:: Installation Name: Traffic Collision Avoidance System (TC																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		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		24 / 0.815		28 / 0.968		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		52 / 1.783							
FY 2018		- / -		- / -		20 / 0.830		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		20 / 0.830							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		24 / 0.815		28 / 0.968		20 / 0.830		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		72 / 2.613							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	24	7	7	7	7	5	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72
Out	18	6	7	7	7	7	5	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	72

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 1 / MV-22 Correction of Deficiencies and Pre Block A Through C (OSIP 022-01)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 11 of 11: GRP: IASE CV2																															
Manufacturer Information																															
Manufacturer Name: V-22 IASE (CV2)															Manufacturer Location: N/A																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018																													
Delivery Dates		Oct 2018																													
Installation Information																															
Method of Implementation: Contractor Drive-in Mod:: Installation Name: IASE CV2																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		48 / 7.170		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 7.170					
FY 2018		- / -		- / -		12 / 0.706		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 0.706					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		48 / 7.170		- / -		12 / 0.706		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 7.876					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	48	-	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60
Out	42	6	-	-	-	-	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60
Footnotes: ⁽¹⁾ Other Support decreased in FY22 and FY23 and moved to AVIONICS OSIP to fund work moved from this OSIP to the AVIONICS OSIP.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	169.982	49.942	38.914	106.818	0.000	106.818	146.350	160.010	161.030	151.699	2,012.177	2,996.922
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	169.982	49.942	38.914	106.818	0.000	106.818	146.350	160.010	161.030	151.699	2,012.177	2,996.922
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	169.982	49.942	38.914	106.818	0.000	106.818	146.350	160.010	161.030	151.699	2,012.177	2,996.922
(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:

This Operational Safety Improvement Program (OSIP) 28-12 is established for the correction of readiness degraders impacting V-22 cost per flight hour, Reliability Maintainability and Availability (RM&A), obsolescence, and reduction of life-cycle costs. These modifications will be accomplished by field retrofit and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the airframe and integrated systems must be modified as critical RM&A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the V-22 Aircraft platform.

CURRENT/ACTIVE Engineering Change Proposals (ECPs):

Funds are used to incorporate ECPs to improve readiness and availability of the aircraft.

Nacelle Improvements - Kits that will improve and upgrade the Nacelle to bring it to a common configuration. Nacelle improvements is a top priority for improving MV-22 readiness. It addresses Nacelle reliability and maintainability degraders as recommended by the Osprey Independent Readiness Review. Nacelle Improvements will reduce wire harness counts, reduce wire interface assemblies, and improve structure and maintenance access ports. Overall, Nacelle Improvements will improve Mission Capable rates by 6 to 8 percent and reduce direct maintenance man-hours.

APU K8/K9 Improvement: Improve power distribution contactors K8 and K9 that provide power during Auxiliary Power Unit (APU) starts. This change will provide appropriately-rated contactors to prevent damage to the APU, other power distribution components, and the aircraft.

Drive Tube: This effort will redesign drive tube which will eliminate an O level recurring inspection as it will decrease stresses at the lower end without affecting the interface with the mast.

V-22 Prop Rotor Gear Box (PRGB) Input Quill/Clutch Redesign: To eliminate resident issues with Input Quill and clutch and to Purge Fleet of Thin Densed Chrome.

Aircraft Bus Tie Circuit Reliability Improvement to provide the ability to power all buses with a battery start of the APU in the presence of a failed Regulated Converter.

Rudder Attachment Reliability Improvement: upgrade to bearings associated with the rear rudder.

Upper and Lower Rod Ends Redesign to prevent excessive wear from normal propotor operation.

Gimbal Ring Joint will increase mean time between failures of the swashplate and hub assembly (which includes the gimbal assembly).

Nose Landing Gear: Improvements in 3 major areas of the nose landing gear mechanisms are proposed, these include: Increase Mechanism Spring Moments, Reducing Torque Tube Pivot Friction and Revising the Mechanism Stops to improve reliability and rigging.

PRGB Atmospheric Protection and Mast Seal Improvement: This initiative reduces corrosion related removals due to water intrusion.

Drive Link/Hub Spring Change: The drive link and hub spring are critical components of the Propotor Hub Assembly. This effort will reduce the the current safety risk and improve readiness of aircraft.

Engine Thermo Couple Wire Harness: This ECP is a safety issue. This purpose of this change is to replace the copper wire with thermocouple wire (Chromel-Alumel material) and eliminate a source of Measured Gas Temperature calculation errors.

Aft Sponson Fuel Tank: This improvement will increase combat range and endurance of the V-22 and enable accomplishment of the Rapid Ground Refueling (RGR) mission with a single aircraft, greatly enhancing support

to the Marine Air Ground Task Force during expeditionary operations.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Aft Sponson Fuel Tank & Main Landing Gear Bay Fire Suppression System (FSS): This improvement will increase combat range and endurance of the V-22 and enable accomplishment of the RGR mission with a single aircraft, greatly enhancing support to the Marine Air Ground Task Force during expeditionary operations. The kit will also increase FSS protection in the Aft Sponson Bay and Main Landing Gear Bays of the standard V-22. V-22 Prop-Rotor Blade Improvements: Incorporate Readiness upgrades to improve Prop Rotor Blades such as an erosion protection system. Shaft Driven Compressor (SDC): Modify the SDC gear train to eliminate high cycle fatigue that leads to early failure of SDC impeller and incorporate improvements to gears and seals. Conversion Area Harness: Increase reliability of the Conversion Area Harness by upgrading the harness, wire type, ribbons and connectors. Mission Computer Obsolescence Initiative (MCOI) Retrofit for BLK C: MCOI replaces several components and allows planned capabilities to operate without memory processing power or memory storage. Has a positive Return on Investment compared too many other costs that would be absorbed (avoidance). Nacelle Blower Improvement: Will incorporate improved impeller material and forming process changing material from A357-T6 cast aluminum to 2024-T851 machined aluminum plate - leading to more uniform grain structure and higher resistance to stress failure and ball bearing material changing from stainless steel to silicon nitride (Si3N4-ceramic) and inner / outer rings changed to Cronidur 30 to mitigate corrosion. Manual Override Switches for Environmental Bus Contractors. Engine Air Particle Separator (EAPS): Start Valve Block A/B/10 Improvements to the Start Circuit side of the EAPS Start Valve Module, will provide for increased reliability. Ice Protection System (IPS): Strengthens component parts which have been prone to stress failures or fraying, Central De-ice Device and Nacelle Ice Protection Control Unit / Master Ice Protection Controller. FUTURE ECPs: Electrical System Upgrade and reliability improvement effort. Increased V-22 electrical system reliability and capacity is required to accommodate demands on electrical power system as additional systems are added to the V-22. Electrical System Re-Design Generator Control Unit (GCU) Relocation: The Constant Frequency Generator (CFG) GCU Redesign effort will increase reliability and sustainability by modernizing the GCU, eliminating persistent fluid intrusion, and introducing an I-level maintenance concept. Modular Avionics: Will improve readiness and fleet capability through rapid technology transition by use of open architecture avionics. Swashplate Actuator: Will incorporate engineering for several reliability, safety and life improvements to the current Swashplate Servoactuator. Troop Seat Retrofit: Troop Seat retrofit/improvement would upgrade the troop seat from a -507 to a -509 configuration. The increases in this OSIP from PB-19 to PB-20 are for the realignment of funding to prioritize V-22 Readiness. Funding was added to this OSIP for non-recurring engineering, Nacelle Improvement kits and installations, CFG GCU redesign kits, and for additional V-22 PRGB Input Quill/Clutch Redesign kits. This created reprioritization of requirements and realignment of funds across OSIPs. FY20 increase supports APU K8/K9 improvement, Conversion Area Harness, EAPS Fire Door Actuator, Upper and Lower Rod Ends, V-22 PRGB Input Quill/Clutch Redesign and Nacelle improvements.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Reliability, Cost-per-flight hour, Reduction in Total Ownership cost				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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												
1.1.1) AC Bus Tie Circuit Reliability Improvement - NonOrganic Installation 1 of 14	185 / 0.766	50 / 0.245	48 / 0.239	48 / 0.243	- / -	48 / 0.243	48 / 0.299	15 / 0.095	- / -	- / -	- / -	394 / 1.887
1.1.2) APU K8/K9 Improvement - NonOrganic Installation 2 of 14	- / -	- / -	- / -	48 / 0.293	- / -	48 / 0.293	48 / 0.299	48 / 0.304	48 / 0.310	48 / 0.316	97 / 0.665	337 / 2.187
1.1.3) Conversion Area Harness - NonOrganic Installation 3 of 14	- / -	- / -	- / -	42 / 6.420	- / -	42 / 6.420	31 / 4.828	24 / 3.809	24 / 3.881	24 / 3.959	205 / 33.813	350 / 56.710
1.1.4) Drive Link/Prop Rotor Hub Spring Change - NonOrganic Installation 4 of 14	- / -	36 / 4.100	60 / 6.963	60 / 7.095	- / -	60 / 7.095	60 / 7.230	57 / 6.999	24 / 3.003	- / -	- / -	297 / 35.390
1.1.5) Drive Tube - NonOrganic Installation 4 of 14	- / -	60 / 2.615	60 / 2.665	60 / 2.715	- / -	60 / 2.715	60 / 2.767	57 / 2.679	- / -	- / -	- / -	297 / 13.441
1.1.8) Gimbal Ring Joint - NonOrganic Installation 4 of 14	- / -	- / -	24 / 0.970	24 / 0.988	- / -	24 / 0.988	24 / 1.007	24 / 1.026	24 / 1.045	24 / 1.066	137 / 5.856	281 / 11.958
1.1.6) EAPS Fire Door Actuator - NonOrganic Installation 5 of 14	- / -	- / -	- / -	66 / 8.712	- / -	66 / 8.712	66 / 8.877	61 / 8.361	60 / 8.380	60 / 8.547	37 / 5.344	350 / 48.221
1.1.7) Engine Thermo Couple Wire Harness - NonOrganic Installation 6 of 14	41 / 0.623	48 / 0.753	48 / 0.767	48 / 0.781	- / -	48 / 0.781	48 / 0.796	50 / 0.845	- / -	- / -	- / -	283 / 4.565
1.1.9) IPS (CDD) - NonOrganic Installation 7 of 14	100 / 19.796	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 19.796
1.1.10) IPS (CDD/NIPCU) - NonOrganic ⁽²⁾ Installation 7 of 14	6 / 1.354	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.354
1.1.11) Manual Override Switches for Environmental Bus - NonOrganic Installation 8 of 14	- / -	60 / 0.012	60 / 0.012	60 / 0.012	- / -	60 / 0.012	60 / 0.012	60 / 0.013	- / -	- / -	- / -	300 / 0.061
1.1.12) MCOI Retrofit BLK C - NonOrganic Installation 9 of 14	23 / 4.069	24 / 4.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	47 / 8.369
1.1.13) Nacelle Blower - Organic ^(*)	- / -	100 / 0.536	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	100 / 0.536
1.1.14) Nose Landing Gear Door Mechanism - NonOrganic Installation 10 of 14	96 / 0.491	5 / 0.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	101 / 0.524
1.1.15) PRGB Atmospheric Protection and Mast Seal Improvement - Organic ^(*)	136 / 0.429	68 / 0.222	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	204 / 0.651
1.1.16) Rudder Attachment Reliability Improvement - NonOrganic Installation 11 of 14	186 / 2.208	60 / 0.220	13 / 0.048	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	259 / 2.476
1.1.17) Shaft Driven Compressor - NonOrganic Installation 12 of 14	- / -	- / -	- / -	- / -	- / -	- / -	54 / 1.620	53 / 1.620	50 / 1.557	48 / 1.525	145 / 4.649	350 / 10.971
1.1.18) Upper and Lower Rod Ends - Organic ^(*)	- / -	- / -	- / -	64 / 12.131	- / -	64 / 12.131	37 / 7.153	53 / 10.452	27 / 5.431	24 / 4.909	93 / 19.403	298 / 59.479
1.1.19) V-22 PRGB Input Quill/Clutch Redesign - Organic ^(*) (3)	- / -	- / -	- / -	126 / 6.420	- / -	126 / 6.420	69 / 3.582	75 / 3.968	89 / 4.799	83 / 4.563	- / -	442 / 23.332

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)				
ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Reliability, Cost-per-flight hour, Reduction in Total Ownership cost				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)
1.1.20) VFG GCU Update - Organic ^(*)	- / -	96 / 3.744	96 / 3.819	91 / 3.692	- / -	91 / 3.692	- / -	- / -	- / -	- / -	- / -	283 / 11.255
1.1.21) Aft Sponson Fuel Tank - NonOrganic Installation 13 of 14	48 / 5.653	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 5.653
1.1.22) Aft Sponson & MLGB FSS - NonOrganic Installation 13 of 14	- / -	24 / 2.880	24 / 2.938	24 / 2.996	- / -	24 / 2.996	24 / 3.056	24 / 3.117	24 / 3.180	24 / 3.243	145 / 16.756	313 / 38.166
1.1.23) CFG GCU Redesign - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 7.392	18 / 3.084	275 / 47.941	337 / 58.417
1.1.24) Nacelle Improvements - NonOrganic ⁽⁴⁾ Installation 14 of 14	- / -	- / -	- / -	6 / 33.000	- / -	6 / 33.000	15 / 84.150	16 / 91.555	16 / 93.386	16 / 95.255	268 / 1,627.410	337 / 2,024.756
1.1.25) Archived ECPs - Organic ^(*)	2,858 / 45.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2,858 / 45.520
1.2.1) Installation Kits N/R - Organic ^(*) ⁽⁵⁾	- / 141.580	- / 5.534	- / 1.399	- / 1.991	- / -	- / 1.991	- / 0.985	- / -	- / -	- / -	- / -	- / 51.489
2.1.1) MCOI Retrofit BLK C IAP B-Kits - Organic ^(*)	23 / 6.440	24 / 6.963	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	47 / 13.403
2.1.2) MCOI Retrofit BLK C DTU B-Kits - Organic ^(*)	- / -	24 / 1.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 1.176
Subtotal: Procurement	- / 128.929	- / 33.333	- / 19.820	- / 87.489	- / -	- / 87.489	- / 126.661	- / 134.843	- / 132.364	- / 126.467	- / 1,761.837	- / 2,551.743
Support												
3.3) Data	- / 1.445	- / 0.242	- / 0.246	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.200	- / 0.200	- / 0.200	- / 0.376	- / 3.309
3.4) Training Equipment	- / 0.238	- / 0.267	- / 0.223	- / 0.227	- / -	- / 0.227	- / 0.232	- / 0.236	- / 0.241	- / 0.245	- / 3.100	- / 5.009
3.5) Support Equipment	- / 1.492	- / 0.772	- / 0.775	- / 0.789	- / -	- / 0.789	- / 0.803	- / 2.973	- / 1.932	- / 0.983	- / 4.085	- / 14.604
3.6) ILS	- / 0.505	- / 0.514	- / 0.251	- / 0.165	- / -	- / 0.165	- / 0.168	- / 0.171	- / 0.175	- / 0.178	- / 2.750	- / 4.877
3.7) Other Support	- / 32.960	- / 9.670	- / 9.863	- / 10.001	- / -	- / 10.001	- / 10.235	- / 10.411	- / 10.474	- / 10.684	- / 52.335	- / 156.633
Subtotal: Support	- / 36.640	- / 11.465	- / 11.358	- / 11.382	- / -	- / 11.382	- / 11.638	- / 13.991	- / 13.022	- / 12.290	- / 62.646	- / 184.432
Installation												
Installation 1 of 14: AC Bus Tie Circuit Reliability Improvement	- / 0.640	- / 0.289	- / 0.283	- / 0.288	- / 0.000	- / 0.288	- / 0.294	- / 0.299	- / 0.095	- / -	- / 0.000	- / 2.188
Installation 2 of 14: APU K8/K9 Improvement	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.432	- / 0.440	- / 0.449	- / 0.457	- / 1.418	- / 3.196
Installation 3 of 14: Conversion Area Harness	- / -	- / -	- / -	- / 1.712	- / 0.000	- / 1.712	- / 1.288	- / 1.016	- / 1.035	- / 1.056	- / 9.579	- / 15.686
Installation 4 of 14: GRP: Drive Link / Drive Tube/Gimbal Ring Joint	- / -	- / -	- / 2.105	- / 4.032	- / 0.000	- / 4.032	- / 4.109	- / 4.187	- / 4.115	- / 2.008	- / 7.113	- / 27.669
Installation 5 of 14: EAPS Fire Door Actuator	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.173	- / 0.176	- / 0.166	- / 0.166	- / 0.337	- / 1.018
Installation 6 of 14: Engine Thermo Couple Wire Harness	- / 0.018	- / 0.734	- / 0.897	- / 0.914	- / 0.000	- / 0.914	- / 0.932	- / 0.949	- / 1.008	- / -	- / 0.000	- / 5.452
Installation 7 of 14: GRP: IPS CDD/NIPCU	- / 0.844	- / 0.151	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.995
Installation 8 of 14: Manual Override Switches for Environmental Bus	- / -	- / -	- / 0.180	- / 0.183	- / 0.000	- / 0.183	- / 0.187	- / 0.190	- / 0.194	- / -	- / 0.000	- / 0.934

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series				Modification Type: Reliability, Cost-per-flight hour, Reduction in Total Ownership cost				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 9 of 14: GRP: MCOI Retrofit	- / -	- / 2.553	- / 2.715	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 5.268	
Installation 10 of 14: Nose Landing Gear Door Mechanism	- / 0.604	- / -	- / 0.064	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.668	
Installation 11 of 14: Rudder Attachment Reliability Improvement	- / 1.774	- / 0.865	- / 0.881	- / 0.194	- / 0.000	- / 0.194	- / -	- / -	- / -	- / -	- / 0.000	- / 3.714	
Installation 12 of 14: Shaft Driven Compressor	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.270	- / 0.270	- / 0.260	- / 1.072	- / 1.872	
Installation 13 of 14: GRP: Aft Sponson Fuel Tank Mods	- / 0.533	- / 0.552	- / 0.611	- / 0.624	- / 0.000	- / 0.624	- / 0.636	- / 0.649	- / 0.662	- / 0.672	- / 4.209	- / 9.148	
Installation 14 of 14: Nacelle Improvements	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.000	- / 7.650	- / 8.323	- / 163.966	- / 182.939	
Subtotal: Installation	- / 4.413	- / 5.144	- / 7.736	- / 7.947	- / -	- / 7.947	- / 8.051	- / 11.176	- / 15.644	- / 12.942	- / 187.694	- / 260.747	
Total													
Total Cost (Procurement + Support + Installation)	169.982	49.942	38.914	106.818	0.000	106.818	146.350	160.010	161.030	151.699	2,012.177	2,996.922	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 14: AC Bus Tie Circuit Reliability Improvement																															
Manufacturer Information																															
Manufacturer Name: AC Bus Tie Circuit Reliability Improvement															Manufacturer Location: N/A																
Administrative Leadtime (in Months): 9															Production Leadtime (in Months): 4																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jun 2018				Jun 2019				Jun 2020				Jun 2021				Jun 2022													
Delivery Dates		Sep 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022													
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: AC Bus Tie Circuit Reliability Improvement																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		137 / 0.640		48 / 0.279		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		185 / 0.919					
FY 2018		- / -		2 / 0.010		48 / 0.283		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		50 / 0.293					
FY 2019		- / -		- / -		- / -		48 / 0.288		0 / 0.000		48 / 0.288		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.288					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.294		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.294					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.299		- / -		- / -		- / -		0 / 0.000		48 / 0.299					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 0.095		- / -		- / -		0 / 0.000		15 / 0.095					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		137 / 0.640		50 / 0.289		48 / 0.283		48 / 0.288		0 / 0.000		48 / 0.288		48 / 0.294		48 / 0.299		15 / 0.095		- / -		0 / 0.000		394 / 2.188							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	137	12	12	12	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	8	7	-	-	-	-	-	-	-	394
Out	125	12	12	12	12	26	12	12	12	-	12	12	12	12	12	12	12	12	12	12	12	12	8	7	-	-	-	-	-	-	394

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey											Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)																		
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																													
Installation 2 of 14: APU K8/K9 Improvement																																								
Manufacturer Information																																								
Manufacturer Name: APU K8/K9 Improvement													Manufacturer Location: Not Specified..																											
Administrative Leadtime (in Months): 4													Production Leadtime (in Months): 10																											
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024														
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024														
Delivery Dates										Nov 2020				Nov 2021				Nov 2022				Nov 2023				Nov 2024														
Installation Information																																								
Method of Implementation: Contractor Drive In Mod:: Installation Name: APU K8/K9 Improvement																																								
Installation Cost		Prior Years	FY 2018				FY 2019				FY 2020 Base				FY 2020 OCO				FY 2020 Total				FY 2021				FY 2022				FY 2023				FY 2024				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)				
Prior Years		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2018		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2019		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2020		- / -	- / -				- / -				- / -				- / -				- / -				48 / 0.432				- / -				- / -				- / -	0 / 0.000	48 / 0.432			
FY 2021		- / -	- / -				- / -				- / -				- / -				- / -				- / -				48 / 0.440				- / -				- / -	0 / 0.000	48 / 0.440			
FY 2022		- / -	- / -				- / -				- / -				- / -				- / -				- / -				48 / 0.449				- / -				- / -	0 / 0.000	48 / 0.449			
FY 2023		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				48 / 0.457				- / -	0 / 0.000	48 / 0.457			
FY 2024		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	48 / 0.467	48 / 0.467			
To Complete		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	97 / 0.951	97 / 0.951			
Total		- / -	- / -				- / -				- / -				- / -				- / -				48 / 0.432				48 / 0.440				48 / 0.449				48 / 0.457				145 / 1.418	337 / 3.196
Installation Schedule																																								
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	145	337									
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	157	337									

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey											Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 3 of 14: Conversion Area Harness																																
Manufacturer Information																																
Manufacturer Name: Conversion Area Harness													Manufacturer Location: Bell Boeing																			
Administrative Leadtime (in Months): 2													Production Leadtime (in Months): 3																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates										Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023						
Delivery Dates										Feb 2020				Feb 2021				Feb 2022				Feb 2023				Feb 2024						
Installation Information																																
Method of Implementation: Contractor Forced Retrofit:: Installation Name: Conversion Area Harness																																
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -									
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -									
FY 2020		- / -	- / -		- / -		42 / 1.712		0 / 0.000		42 / 1.712		- / -		- / -		- / -		- / -		0 / 0.000		42 / 1.712									
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		31 / 1.288		- / -		- / -		- / -		0 / 0.000		31 / 1.288									
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.016		- / -		- / -		0 / 0.000		24 / 1.016									
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.035		- / -		0 / 0.000		24 / 1.035									
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.056		0 / 0.000		24 / 1.056									
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		205 / 9.579		205 / 9.579									
Total		- / -	- / -		- / -		42 / 1.712		0 / 0.000		42 / 1.712		31 / 1.288		24 / 1.016		24 / 1.035		24 / 1.056		205 / 9.579		350 / 15.686									
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	14	-	11	10	10	-	4	10	10	-	4	10	10	-	4	10	10			
Out	-	-	-	-	-	-	-	-	-	-	14	14	14	-	11	10	10	-	4	10	10	-	4	10	10	-	4	10	10			

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey											Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 4 of 14: GRP: Drive Link / Drive Tube/Gimbal Ring Joint																																
Manufacturer Information																																
Manufacturer Name: Drive Tube / Drive Link / Gimbal Ring													Manufacturer Location: Bell Boeing																			
Administrative Leadtime (in Months): 2													Production Leadtime (in Months): 12																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates		Nov 2017				Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022										
Delivery Dates		Nov 2018				Nov 2019				Nov 2020				Nov 2021				Nov 2022				Nov 2023										
Installation Information																																
Method of Implementation: Contractor Drive In Mod:: Installation Name: Drive Link / Drive Tube/Gimbal Ring Joint																																
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		96 / 2.105		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		96 / 2.105							
FY 2019		- / -	- / -		- / -		144 / 4.032		0 / 0.000		144 / 4.032		- / -		- / -		- / -		- / -		- / -		0 / 0.000		144 / 4.032							
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		144 / 4.109		- / -		- / -		- / -		- / -		0 / 0.000		144 / 4.109							
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		144 / 4.187		- / -		- / -		- / -		0 / 0.000		144 / 4.187							
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		138 / 4.115		- / -		- / -		0 / 0.000		138 / 4.115							
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 2.008		0 / 0.000		48 / 2.008							
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 1.297		24 / 1.297							
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		137 / 5.816		137 / 5.816							
Total		- / -	- / -		96 / 2.105		144 / 4.032		0 / 0.000		144 / 4.032		144 / 4.109		144 / 4.187		138 / 4.115		48 / 2.008		161 / 7.113		875 / 27.669									
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	24	24	24	24	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	30	6	18	18	6	161	875	
Out	-	-	-	-	-	-	24	24	24	24	36	36	36	36	36	36	36	36	36	36	36	30	36	36	36	6	18	18	6	197	875	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 14: EAPS Fire Door Actuator																															
Manufacturer Information																															
Manufacturer Name: EAPS Fire Door Actuator															Manufacturer Location: Bell Boeing																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 8																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates										Nov 2020				Nov 2021				Nov 2022				Nov 2023				Nov 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod:: Installation Name: EAPS Fire Door Actuator																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		66 / 0.173		- / -		- / -		- / -		- / -		0 / 0.000		66 / 0.173						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		66 / 0.176		- / -		- / -		- / -		0 / 0.000		66 / 0.176						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		61 / 0.166		- / -		- / -		0 / 0.000		61 / 0.166						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.166		0 / 0.000		60 / 0.166						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.168		60 / 0.168						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		37 / 0.169		37 / 0.169						
Total		- / -	- / -		- / -		- / -		- / -		- / -		66 / 0.173		66 / 0.176		61 / 0.166		60 / 0.166		97 / 0.337		350 / 1.018								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	17	17	16	16	17	17	16	16	16	15	15	15	15	15	15	15	97	350
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	16	16	17	17	16	16	17	16	15	15	15	15	15	15	112	350

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 14: Engine Thermo Couple Wire Harness																															
Manufacturer Information																															
Manufacturer Name: Engine Thermo Couple Wire Harness															Manufacturer Location: Bell Boeing																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022													
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022													
Installation Information																															
Method of Implementation: Contractor Drive-In Modification:: Installation Name: Engine Thermo Couple Wire Harness																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.018		40 / 0.734		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		41 / 0.752					
FY 2018		- / -		- / -		48 / 0.897		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.897					
FY 2019		- / -		- / -		- / -		48 / 0.914		0 / 0.000		48 / 0.914		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.914					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.932		- / -		- / -		- / -		- / -		0 / 0.000		48 / 0.932					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.949		- / -		- / -		- / -		0 / 0.000		48 / 0.949					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 1.008		- / -		- / -		0 / 0.000		50 / 1.008					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		1 / 0.018		40 / 0.734		48 / 0.897		48 / 0.914		0 / 0.000		48 / 0.914		48 / 0.932		48 / 0.949		50 / 1.008		- / -		0 / 0.000		283 / 5.452							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	10	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13	13	12	-	-	-	-	-	283
Out	1	-	10	10	10	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	13	13	12	-	-	-	-	283

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 14: GRP: IPS CDD/NIPCU																															
Manufacturer Information																															
Manufacturer Name: IPS (CDD/NIPCU) & IPS CDD															Manufacturer Location: N/A																
Administrative Leadtime (<i>in Months</i>): 2															Production Leadtime (<i>in Months</i>): 13																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: IPS CDD/NIPCU																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		102 / 0.844		4 / 0.151		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		106 / 0.995					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		102 / 0.844		4 / 0.151		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		106 / 0.995					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	102	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106
Out	102	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	106

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 8 of 14: Manual Override Switches for Environmental Bus																															
Manufacturer Information																															
Manufacturer Name: Manual Override Switches for Environmental Bus															Manufacturer Location: N/A																
Administrative Leadtime <i>(in Months)</i> : 4															Production Leadtime <i>(in Months)</i> : 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Jan 2018				Jan 2019				Jan 2020				Jan 2021				Jan 2022													
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022													
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Manual Override Switches for Environmental Bus																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		60 / 0.180		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.180						
FY 2019		- / -	- / -		- / -		60 / 0.183		0 / 0.000		60 / 0.183		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.183						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		60 / 0.187		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.187						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.190		- / -		- / -		- / -		0 / 0.000		60 / 0.190						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		60 / 0.194		- / -		- / -		0 / 0.000		60 / 0.194						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		60 / 0.180		60 / 0.183		0 / 0.000		60 / 0.183		60 / 0.187		60 / 0.190		60 / 0.194		- / -		0 / 0.000		300 / 0.934								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	-	-	-	-	-	300
Out	-	-	-	-	-	-	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	-	-	-	-	300

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 9 of 14: GRP: MCOI Retrofit																															
Manufacturer Information																															
Manufacturer Name: MCOI Retrofit BLK C										Manufacturer Location: Redstone, AL																					
Administrative Leadtime <i>(in Months)</i> : 3										Production Leadtime <i>(in Months)</i> : 10																					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024																								
Contract Dates	Dec 2017																														
Delivery Dates	Oct 2018																														
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: MCOI Retrofit																															
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																			
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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	- / -	23 / 2.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	23 / 2.553																			
FY 2018	- / -	- / -	24 / 2.715	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	24 / 2.715																			
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																			
Total	- / -	23 / 2.553	24 / 2.715	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	47 / 5.268																			
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	6	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47
Out	-	-	-	8	8	13	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 10 of 14: Nose Landing Gear Door Mechanism																															
Manufacturer Information																															
Manufacturer Name: Nose Landing Gear Door Mechanism										Manufacturer Location: N/A																					
Administrative Leadtime <i>(in Months)</i> : 2										Production Leadtime <i>(in Months)</i> : 13																					
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates		Dec 2017																													
Delivery Dates		Jan 2019																													
Installation Information																															
Method of Implementation: Contractor Drive-In Modification:: Installation Name: Nose Landing Gear Door Mechanism																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total																		
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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		91 / 0.604	- / -	5 / 0.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	96 / 0.636																		
FY 2018		- / -	- / -	5 / 0.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	5 / 0.032																		
FY 2019		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		91 / 0.604	- / -	10 / 0.064	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	101 / 0.668																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	91	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101
Out	91	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	101

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 11 of 14: Rudder Attachment Reliability Improvement																															
Manufacturer Information																															
Manufacturer Name: Rudder Attachment Reliability Improvement															Manufacturer Location: N/AN/A																
Administrative Leadtime (in Months): 1															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Oct 2017				Oct 2018																									
Delivery Dates		Nov 2018				Nov 2019																									
Installation Information																															
Method of Implementation: Contractor Drive-In Modification:: Installation Name: Rudder Attachment Reliability Improvement																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		126 / 1.774		60 / 0.865		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		186 / 2.639					
FY 2018		- / -		- / -		60 / 0.881		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		60 / 0.881					
FY 2019		- / -		- / -		- / -		13 / 0.194		0 / 0.000		13 / 0.194		- / -		- / -		- / -		- / -		- / -		0 / 0.000		13 / 0.194					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		126 / 1.774		60 / 0.865		60 / 0.881		13 / 0.194		0 / 0.000		13 / 0.194		- / -		- / -		- / -		- / -		- / -		0 / 0.000		259 / 3.714					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	126	15	15	15	15	15	15	15	15	7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259
Out	126	15	15	15	15	15	15	15	15	7	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	259

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 12 of 14: Shaft Driven Compressor																															
Manufacturer Information																															
Manufacturer Name: Shaft Driven Compressor															Manufacturer Location: Bell Boeing																
Administrative Leadtime (<i>in Months</i>): 6															Production Leadtime (<i>in Months</i>): 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates														Oct 2021				Oct 2022				Oct 2023				Oct 2023					
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Shaft Driven Compressor																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		54 / 0.270		- / -		- / -		0 / 0.000		54 / 0.270					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		53 / 0.270		- / -		0 / 0.000		53 / 0.270					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		50 / 0.260		0 / 0.000		50 / 0.260					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		48 / 0.249		48 / 0.249					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		145 / 0.823		145 / 0.823					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		54 / 0.270		53 / 0.270		50 / 0.260		193 / 1.072		350 / 1.872					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	14	14	13	13	14	13	12	14	12	12	193	350
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	13	14	14	13	13	14	13	12	14	12	12	193	350

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 13 of 14: GRP: Aft Sponson Fuel Tank Mods																															
Manufacturer Information																															
Manufacturer Name: Aft Sponson Fuel Tank & /MLGB FSS															Manufacturer Location: Bell Boeing																
Administrative Leadtime <i>(in Months)</i> : 6															Production Leadtime <i>(in Months)</i> : 7																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates		Mar 2018				Mar 2019				Mar 2020				Mar 2021				Mar 2022				Mar 2023				Mar 2024					
Delivery Dates		Oct 2018				Oct 2019				Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Contractor Drive In Mod:: Installation Name: Aft Sponson Fuel Tank Mods																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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		24 / 0.533		24 / 0.552		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		48 / 1.085							
FY 2018		- / -		- / -		24 / 0.611		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.611							
FY 2019		- / -		- / -		- / -		24 / 0.624		0 / 0.000		24 / 0.624		- / -		- / -		- / -		- / -		0 / 0.000		24 / 0.624							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.636		- / -		- / -		- / -		0 / 0.000		24 / 0.636							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.649		- / -		- / -		0 / 0.000		24 / 0.649							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.662		- / -		0 / 0.000		24 / 0.662							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.672		0 / 0.000		24 / 0.672							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		24 / 0.685		24 / 0.685							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		145 / 3.524		145 / 3.524							
Total		24 / 0.533		24 / 0.552		24 / 0.611		24 / 0.624		0 / 0.000		24 / 0.624		24 / 0.636		24 / 0.649		24 / 0.662		24 / 0.672		169 / 4.209		361 / 9.148							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	24	11	8	5	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	169	361
Out	24	-	11	8	5	-	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	-	6	6	6	-	6	6	6	187	361

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 14 of 14: Nacelle Improvements																															
Manufacturer Information																															
Manufacturer Name: Nacelle															Manufacturer Location: Bell/Boeing																
Administrative Leadtime <i>(in Months)</i> : 8															Production Leadtime <i>(in Months)</i> : 15																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jun 2020				Jun 2021				Jun 2022				Jun 2023				Jun 2024					
Delivery Dates										Oct 2021				Oct 2022				Oct 2023				Oct 2024				Oct 2025					
Installation Information																															
Method of Implementation: Contractor:: Installation Name: Nacelle Improvements																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 3.000		- / -		- / -		0 / 0.000		6 / 3.000					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		15 / 7.650		- / -		- / -		0 / 0.000		15 / 7.650					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		16 / 8.323		0 / 0.000		16 / 8.323					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		16 / 8.489		16 / 8.489					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		16 / 8.597		16 / 8.597					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		268 / 146.880		268 / 146.880					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 3.000		15 / 7.650		16 / 8.323		300 / 163.966		337 / 182.939					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	1	3	4	4	4	4	4	4	4	300	337
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	2	1	3	4	4	4	4	4	4	4	300	337
Footnotes: ⁽²⁾ IPS: Install schedule combines IPS (CDD) and IPS (CDD/NIPCU) showing a total of 106 installs. ⁽³⁾ The V-22 PRGB Input Quill /Clutch Redesign kits increased from PB-19 to PB-20 due to V-22 readiness requirements. Kits were increased across the FYDP in support of V-22 Readiness.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 2 / MV-22 Readiness (OSIP 028-12)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
⁽⁴⁾ Nacelle Improvement Kits and Installations were added in support of V-22 readiness requirements. This effort addresses reliability and maintainability degraders and will improve Mission Capable rates by 6 to 8 percent. Kit procurement begins in FY 2020. Funding was realigned from other OSIPs as other requirements were reprioritized to support Readiness initiatives. Non-recurring engineering for this effort was partially funded under OSIP 011-17, migrating to OSIP 028-12 in FY 2020. ⁽⁵⁾ The increase in Installation Kits N/R from PB-19 to PB-20 is due to non-recurring engineering efforts in support of the Nacelle Improvement effort.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 3 / Common Configuration (011-17)

ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	80.963	80.760	71.040	140.161	0.000	140.161	110.654	251.647	272.902	280.100	1,151.229	2,439.456
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	80.963	80.760	71.040	140.161	0.000	140.161	110.654	251.647	272.902	280.100	1,151.229	2,439.456
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	80.963	80.760	71.040	140.161	0.000	140.161	110.654	251.647	272.902	280.100	1,151.229	2,439.456
(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:

Operational Safety Improvement Program (OSIP) 011-17 is established for the Modification of 129 Block B and 124 Block C MV-22B aircraft to a common production configuration in support of improved readiness, achieving common configuration, and reducing Life Cycle Cost. The reduction of future Operating and Support costs is achieved by the reduction of National Stock Numbers in the supply system, reduction of training and maintenance tasks in the Intelligent Electronic Technical Manuals, and reduction of Non-Recurring Engineering retrofit costs due to multiple aircraft configurations on future engineering changes. This will include funding for approximately 80 Engineering Change Proposals that impact safety, reliability and cost.

Common Configuration- Readiness and Modernization (CC-RAM) is the Marine Corps' top priority for MV-22 readiness. It will have the biggest impact of returning readiness to required levels for combat by consolidating fleet configurations to a 2019 standard, addressing the major issue identified by the Osprey Independent Readiness Review. The MV-22 CC-RAM effort will upgrade 129 MV-22 Block B aircraft to a Block C configuration. CC-RAM will improve Mission Capable rates approximately 15 percent for aircraft undergoing Block B to C modification, and reduce maintenance man hours by approximately 30 percent. Overall, CC-RAM will return 25 to 30 additional Ready Basic Aircraft to the flightline for tasking and greatly simplify logistics and training upon completion. Additionally, there will be a long term cost avoidance of \$1.5 to \$1.7B with streamlined supply system and engineering requirements for future modifications.

Common Configuration Kits: Kits that will bring retrofit aircraft up to a common configuration.

Nacelle Reliability Upgrades: Kits that will improve and upgrade the Nacelle to bring it to a common configuration.

Multifunction Display (MFD) and Advanced MFD: or flight displays in cockpit, thirty lb. weight savings, less cooling and power requirements, significant obsolescence avoided, greater pilot display capabilities.

Data Transfer Unit: Replaces obsolete unit.

Gen 5 Radio - ARC 210 Radio upgrade to current generation UHF/VHF/SATCOM Radio Upgrade

Cockpit control unit- Block C upgrade which relocates the unit to provide accessibility for pilot/co-pilot/ and or crew chief

Power Monitor - Block C upgrade for External Power monitor

CSAD-Cabin Situational Awareness Device Upgrade which expands the situational awareness capabilities for the troop commander, providing a moving map, positional data, flight plan, and other pertinent data

Funding in FY 2020 was realigned to OSIP 28-12 MV-22 Readiness in support of Nacelle Improvement kit procurement. FY20 increase supports four additional Common Configuration Kids, and the increase in Gen 5 Radio, Cockpit Control Unit, Power Monitors, and CSAD kit procurements which added to this OSIP.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				Modification Number / Title: 3 / Common Configuration (011-17)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capability					Related RDT&E PEs: 0604262N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Common Configuration (011-17)													
A Kits													
Recurring													
1.1.1) Common Configuration - Organic ⁽⁶⁾		- / -	- / -	4 / 64.028	8 / 130.361	- / -	8 / 130.361	6 / 100.842	15 / 240.000	16 / 260.864	16 / 267.929	62 / 1,111.286 127 / 2,175.310	
Subtotal: Recurring		- / 0.000	- / -	- / 64.028	- / 130.361	- / -	- / 130.361	- / 100.842	- / 240.000	- / 260.864	- / 267.929	- / 1,111.286 - / 2,175.310	
Non-Recurring													
1.2.1) Installation Kits - N/R Common Configuration - Organic ⁽⁷⁾		- / 80.963	- / 74.182	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 155.145	
Subtotal: Non-Recurring		- / 80.963	- / 74.182	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 155.145	
B Kits													
Recurring													
2.1.1) Advanced Multi Function Display - Organic		- / -	7 / 0.713	9 / 0.935	6 / 0.441	- / -	6 / 0.441	15 / 1.124	16 / 1.223	16 / 1.247	16 / 1.272	47 / 2.063 132 / 9.018	
2.1.2) Data Transfer Unit - Organic		- / -	7 / 0.343	9 / 0.450	6 / 0.340	- / -	6 / 0.340	15 / 0.868	16 / 0.944	16 / 0.963	16 / 0.982	38 / 2.242 123 / 7.132	
2.1.3) Gen 5 Radio - Organic		- / -	- / -	- / -	6 / 0.907	- / -	6 / 0.907	6 / 0.925	15 / 2.358	16 / 2.565	16 / 2.617	47 / 7.841 106 / 17.213	
2.1.4) Cockpit Control Unit - Organic		- / -	- / -	- / -	6 / 0.132	- / -	6 / 0.132	15 / 0.321	16 / 0.366	16 / 0.373	16 / 0.380	44 / 1.069 113 / 2.641	
2.1.5) Power Monitor - Organic		- / -	- / -	- / -	6 / 0.009	- / -	6 / 0.009	15 / 0.024	16 / 0.027	16 / 0.027	16 / 0.028	44 / 0.079 113 / 0.194	
2.1.6) CSAD - Organic		- / -	- / -	- / -	6 / 0.285	- / -	6 / 0.285	15 / 0.728	16 / 0.792	16 / 0.808	16 / 0.824	44 / 2.310 113 / 5.747	
Subtotal: Recurring		- / 0.000	- / 1.056	- / 1.385	- / 2.114	- / -	- / 2.114	- / 3.990	- / 5.710	- / 5.983	- / 6.103	- / 15.604 - / 41.945	
Subtotal: Common Configuration (011-17)		- / 80.963	14 / 75.238	22 / 65.413	44 / 132.475	- / -	44 / 132.475	87 / 104.832	110 / 245.710	112 / 266.847	112 / 274.032	326 / 1,126.890 827 / 2,372.400	
Subtotal: Procurement, All Modification Items		- / 80.963	- / 75.238	- / 65.413	- / 132.475	- / -	- / 132.475	- / 104.832	- / 245.710	- / 266.847	- / 274.032	- / 1,126.890 - / 2,372.400	
Support (All Modification Items)													
3.1) Training Equipment ⁽⁸⁾		- / -	- / -	- / -	- / 1.952	- / -	- / 1.952	- / -	- / -	- / -	- / -	- / 1.952	
3.2) Other Support		- / -	- / 5.522	- / 5.627	- / 5.734	- / -	- / 5.734	- / 5.822	- / 5.937	- / 6.055	- / 6.068	- / 24.339 - / 65.104	
Subtotal: Support		- / 0.000	- / 5.522	- / 5.627	- / 7.686	- / -	- / 7.686	- / 5.822	- / 5.937	- / 6.055	- / 6.068	- / 24.339 - / 67.056	
Installation													
Subtotal: Installation		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)		80.963	80.760	71.040	140.161	0.000	140.161	110.654	251.647	272.902	280.100	1,151.229 2,439.456	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 3 / Common Configuration (011-17)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Common Configuration (011-17)		
Footnotes: (6) Common Configuration is being done as a Turn-Key Mod line. Funding was realigned from common configuration to OSIP 28-12 for the incorporation of the Nacelle Improvement kit procurements. (7) FY18 Common Configuration includes Non Recurring Engineering Costs and 2 Validation Kits. (8) Training Equipment required to upgrade Maintenance Trainer to Common Configuration. The increase in FY 2020 is for updated user requirements for the Maintenance Trainer.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 4 / Aerial Refueling (008-18)

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	14.206	24.314	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.520
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	14.206	24.314	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.520
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	14.206	24.314	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.520
(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 MV-22 Aerial Refueling system effort is cancelled starting in FY 2020. Funds for this effort in FY 2020 through the FYDP have been removed from this budget exhibit. FY 2019 funding will be used for contract termination costs and closeout efforts.

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey				Modification Number / Title: 4 / Aerial Refueling (008-18)					
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Performance, Capability					Related RDT&E PEs: 0604262N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: Aerial Refueling (008-18)													
A Kits													
Recurring													
1.1.1) Electric/Hydraulic A Kits - Organic		- / -	10 / 2.550	24 / 6.242	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 8.792	
1.1.2) FMU Upgrade - Organic		- / -	10 / 0.560	34 / 1.962	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 2.522	
Subtotal: Recurring		- / 0.000	- / 3.110	- / 8.204	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.314	
Non-Recurring													
1.2.1) Installation Kits N/R - Organic		- / -	- / 0.130	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.130	
Subtotal: Non-Recurring		- / 0.000	- / 0.130	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.130	
B Kits													
Recurring													
2.1.1) Reel Mission Kits - Organic		- / -	2 / 3.836	6 / 11.738	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 15.574	
2.1.2) Mat Mod - Organic		- / -	10 / 1.020	24 / 2.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 3.517	
Subtotal: Recurring		- / 0.000	- / 4.856	- / 14.235	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 19.091	
Subtotal: Aerial Refueling (008-18)		- / -	32 / 8.096	88 / 22.439	- / -	- / -	- / -	- / -	- / -	- / -	- / -	120 / 30.535	
Subtotal: Procurement, All Modification Items		- / 0.000	- / 8.096	- / 22.439	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 30.535	
Support (All Modification Items)													
3.1) Data		- / -	- / 1.410	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.410	
3.2) Training Equipment		- / -	- / 0.100	- / 0.534	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.634	
3.3) Support Equipment		- / -	- / 3.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.150	
3.4) ILS		- / -	- / 0.135	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.135	
3.5) Other Support		- / -	- / 1.315	- / 1.341	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.656	
Subtotal: Support		- / 0.000	- / 6.110	- / 1.875	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 7.985	
Installation													
Subtotal: Installation		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)		0.000	14.206	24.314	0.000	0.000	0.000	0.000	0.000	0.000	0.000	38.520	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 4 / Aerial Refueling (008-18)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: Aerial Refueling (008-18)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 5 / Avionics Improvements (009-19)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	42.328	63.492	0.000	63.492	51.461	51.174	52.624	53.924	864.447	1,179.450
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	42.328	63.492	0.000	63.492	51.461	51.174	52.624	53.924	864.447	1,179.450
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	42.328	63.492	0.000	63.492	51.461	51.174	52.624	53.924	864.447	1,179.450
(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:

OSIP 009-19 is established to incorporate changes to V-22 Avionics systems, working in concert with the Technical Insertion (TI) schedule to reduce cost, improve coordination, yield common configurations, and improve ready based aircraft. Improvements to safety of flight, maintenance, obsolescence (Diminishing Manufacturing Sources/Material Shortages), and readiness degrader items will yield a more interoperable and survivable V-22 force to sustain warfighter capability in support of worldwide operations.

Current/Active ECPs:

Funds will be utilized to manage, process and incorporate ECPs and implement changes to sustain and improve MV-22 retrofit aircraft readiness, safety, mission availability, structural integrity and components reliability, maintainability and obsolescence conditions.

Funds are used to incorporate ECPs for Avionics Improvements.

AVIONICS: Avionics modifications to the V-22 will improve display reliability, eliminate communication security issues and alleviate parts obsolescence/vendor problems. Changes to the V-22 avionics will include: Display System upgrade, Cockpit Inter Communication System modification, upgraded Mission Computer, updated Data Transfer Module, Control Display Unit/Engine Instrument Caution Advisory System upgrade, Control Display Unit Keyboard upgrade, and Avionics Interface Units upgrades. As well as Mission System Upgrade and Midwing Processing Unit obsolescence replacement. Software modifications are controlled by the functional requirements document (FRD) and introduced to the fleet for release every two years, or as needed based on emerging fleet requirements. Modifications to the various avionics software configuration items being incorporated into the fleet aircraft also require updates to the Collaborative Automated Maintenance Environment Optimized (CAMEO), Integrated Electronic Technical Manuals (IETMs); and mission planning. Specifically for the mission planning system, the V-22 Unique Planning Component (UPC) for the Joint Mission Planning System (JMPS) must implement frequent software updates in conjunction with production aircraft performance and software changes. Changes to the JMPS UPC in accordance with the FRD must include mission planning specific software regression tests to ensure proper operation and integration with other aircraft UPCs within JMPS.

V-22 Integrated Aircraft Survivability Equipment (IASE) (ECP previously in OSIP 22-01): Will correct deficiencies of the current RADAR warning system, replace the existing Missile Warning System, implement an active Infra-red countermeasure system, upgrade current countermeasures dispenser and provide integrated threat information on current aircraft main flight displays.

Data Transfer Unit (ECP migrated from OSIP 22-01): Replaces obsolete unit.

FLIR (ECP migrated from OSIP 22-01): Upgrade the Forward Looking Infrared (FLIR) System Electronics Unit (SEU) with an Enhanced Local Area Processing (ELAP) card to improve visibility for the pilot. The SEU provides digital signal processing of the image obtained via the FLIR optics in the current FLIR unit, and passes the image data to the MV-22 mission computer.

Traffic Collision Avoidance System (TCAS) (ECP migrated from OSIP 22-01): Procurement of kits and installations of the Honeywell MILACAS-XR TCAS into MCOI-equipped MV-22 Block B and C aircraft.

MILACAS-XR is identical to the TCAS system already in use aboard the CV-22, and will advise MV-22 pilots of other air traffic in proximity to the MV-22, as well as resolution advisories of what course to fly to avoid colliding with the threat aircraft.

Digital Interoperability (ECP migrated from OSIP 22-01): Provides situational awareness, enhanced command and control, remote and operation of payloads, and tracking of Marines and cargo. It also allows for collaboration and cooperation in a Joint environment.

Multifunction Display (MFD) and Advanced MFD (ECP migrated from OSIP 22-01): Upgrades flight displays in cockpit, thirty lb. weight savings, less cooling and power requirements, significant obsolescence avoided, greater pilot display capabilities.

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey	Modification Number / Title: 5 / Avionics Improvements (009-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Multi Spectral Sensor (ECP migrated from OSIP 22-01): Targeting forward looking infra-red device. ECP-Training Equipment: Aircraft Maintenance Trainer (AMT): #4, Improves training and pilot proficiency by incorporating modifications to the AMT to reflect most current Block aircraft configuration. ECP-Training Equipment: Full Fidelity Simulator (FFS) UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FFS #1-4 to reflect most current aircraft configuration as directed by Blue Ribbon Panel. ECP-Training Equipment: FTD UPGRADES: Improves training and pilot proficiency by incorporating modifications to the FTD #1-14 to reflect most current aircraft configuration as directed by Blue Ribbon Panel. Mission Computer Obsolescence Initiative (MCOI) Retrofit for BLK C (ECP migrated from OSIP 28-12): MCOI replaces several components and allows planned capabilities to operate without memory processing power or memory storage. FY20 increase in funding for Digital Interoperability, V-22 Integrated Aircraft Survivability Equipment, Installation Kits N/R and associated support.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 5 / Avionics Improvements (009-19)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: V-22 Series			Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capability				Related RDT&E PEs: 0604262N						
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Advanced MFD - NonOrganic Installation 1 of 7	- / -	- / -	33 / 2.640	18 / 1.467	- / -	18 / 1.467	- / -	- / -	- / -	- / -	- / -	51 / 4.107	
1.1.2) Digital Interoperability - MANGL - NonOrganic Installation 2 of 7	- / -	- / -	- / -	12 / 4.944	- / -	12 / 4.944	12 / 5.045	12 / 5.097	12 / 5.247	12 / 5.301	277 / 134.210	337 / 159.844	
1.1.3) Digital Interoperability - MANGL GFE - Organic ^(*)	- / -	- / -	- / -	12 / 2.220	- / -	12 / 2.220	12 / 2.243	12 / 2.266	12 / 2.289	12 / 2.312	277 / 60.275	337 / 71.605	
1.1.4) FLIR ELAP - NonOrganic Installation 3 of 7	- / -	- / -	144 / 1.814	96 / 1.234	- / -	96 / 1.234	92 / 1.206	115 / 1.538	- / -	- / -	- / -	447 / 5.792	
1.1.5) MCOI BLK C - NonOrganic Installation 4 of 7	- / -	- / -	24 / 4.382	13 / 2.419	- / -	13 / 2.419	- / -	- / -	- / -	- / -	- / -	37 / 6.801	
1.1.6) Multi Spectral Sensor - NonOrganic Installation 5 of 7	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 10.800	12 / 11.016	313 / 294.678	337 / 316.494	
1.1.7) Traffic Collision Avoidance System - NonOrganic Installation 6 of 7	- / -	- / -	34 / 4.848	34 / 4.941	- / -	34 / 4.941	35 / 5.182	- / -	- / -	- / -	- / -	103 / 14.971	
1.1.8) V-22 Integrated Aircraft Survivability Equip (DV2/LSPR) - NonOrganic Installation 7 of 7	- / -	- / -	- / -	12 / 9.642	- / -	12 / 9.642	12 / 9.834	12 / 10.031	12 / 10.221	12 / 10.425	148 / 128.593	208 / 178.746	
1.2.1) Installation Kits N/R - Organic ^(*)	- / -	- / -	- / -	- / 2.973	- / -	- / 2.973	- / -	- / -	- / -	- / -	- / -	- / 2.973	
2.1.1) Advanced MFD - Organic ^(*)	- / -	- / -	33 / 3.465	18 / 1.928	- / -	18 / 1.928	- / -	- / -	- / -	- / -	- / -	51 / 5.393	
2.1.2) MCOI BLK C - DTU B-Kits - Organic ^(*)	- / -	- / -	24 / 1.198	13 / 0.661	- / -	13 / 0.661	- / -	- / -	- / -	- / -	- / -	37 / 1.859	
2.1.3) MCOI BLK C - IAP B-Kits - Organic ^(*)	- / -	- / -	24 / 7.089	13 / 3.913	- / -	13 / 3.913	- / -	- / -	- / -	- / -	- / -	37 / 11.002	
Subtotal: Procurement	- / 0.000	- / -	- / 25.436	- / 36.342	- / -	- / 36.342	- / 23.510	- / 18.932	- / 28.557	- / 29.054	- / 617.756	- / 779.587	
Support													
3.1) Other Support ⁽⁹⁾	- / -	- / -	- / 4.407	- / 8.929	- / -	- / 8.929	- / 9.124	- / 9.288	- / 9.422	- / 9.608	- / 7.108	- / 57.886	
3.2) Training Equipment ⁽¹⁰⁾	- / -	- / -	- / 10.143	- / 10.076	- / -	- / 10.076	- / 9.410	- / 13.091	- / 7.872	- / 8.112	- / 73.057	- / 131.761	
3.3) Support Equipment ⁽¹¹⁾	- / -	- / -	- / 1.478	- / 2.770	- / -	- / 2.770	- / 0.492	- / 2.465	- / 1.532	- / -	- / 3.243	- / 11.980	
Subtotal: Support	- / 0.000	- / -	- / 16.028	- / 21.775	- / -	- / 21.775	- / 19.026	- / 24.844	- / 18.826	- / 17.720	- / 83.408	- / 201.627	
Installation													
Installation 1 of 7: Advanced MFD	- / -	- / -	- / -	- / 0.594	- / 0.000	- / 0.594	- / 0.330	- / -	- / -	- / -	- / 0.000	- / 0.924	
Installation 2 of 7: Digital Interoperability - MANGL	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.592	- / 2.644	- / 2.697	- / 2.750	- / 71.747	- / 82.430	
Installation 3 of 7: FLIR ELAP	- / -	- / -	- / 0.864	- / 0.587	- / 0.000	- / 0.587	- / 0.573	- / 0.730	- / -	- / -	- / 0.000	- / 2.754	
Installation 4 of 7: MCOI BLK C	- / -	- / -	- / -	- / 2.766	- / 0.000	- / 2.766	- / 1.527	- / -	- / -	- / -	- / 0.000	- / 4.293	
Installation 5 of 7: Multi Spectral Sensor	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.800	- / 53.820	- / 55.620	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey						Modification Number / Title: 5 / Avionics Improvements (009-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: V-22 Series				Modification Type: Safety, Reliability, Increased Service Life, Improved Mission Capability				Related RDT&E PEs: 0604262N					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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)	
Installation 6 of 7: Traffic Collision Avoidance System	- / -	- / -	- / -	- / 1.428	- / 0.000	- / 1.428	- / 1.457	- / 1.529	- / -	- / -	- / 0.000	- / 4.414	
Installation 7 of 7: V-22 Integrated Aircraft Survivability Equip (DV2/LSPR)	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.446	- / 2.495	- / 2.544	- / 2.600	- / 37.716	- / 47.801	
Subtotal: Installation	- / 0.000	- / -	- / 0.864	- / 5.375	- / -	- / 5.375	- / 8.925	- / 7.398	- / 5.241	- / 7.150	- / 163.283	- / 198.236	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	42.328	63.492	0.000	63.492	51.461	51.174	52.624	53.924	864.447	1,179.450	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1											P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey											Modification Number / Title: 5 / Avionics Improvements (009-19)										
ID Code (A=Service Ready, B=Not Service Ready) :											MDAP/MAIS Code:																					
Installation 1 of 7: Advanced MFD																																
Manufacturer Information																																
Manufacturer Name: Advanced MFD													Manufacturer Location: Redstone, AL																			
Administrative Leadtime <i>(in Months)</i> : 4													Production Leadtime <i>(in Months)</i> : 9																			
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024						
Contract Dates						Jan 2019				Jan 2020																						
Delivery Dates						Oct 2019				Oct 2020																						
Installation Information																																
Method of Implementation: Contractor Field Modification:: Installation Name: Advanced MFD																																
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -		- / -		- / -		33 / 0.594		0 / 0.000		33 / 0.594		- / -		- / -		- / -		- / -		- / -		0 / 0.000		33 / 0.594						
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		18 / 0.330		- / -		- / -		- / -		- / -		0 / 0.000		18 / 0.330						
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -		- / -		- / -		33 / 0.594		0 / 0.000		33 / 0.594		18 / 0.330		- / -		- / -		- / -		- / -		0 / 0.000		51 / 0.924						
Installation Schedule																																
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	9	8	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	
Out	-	-	-	-	-	-	-	-	-	8	8	9	8	6	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)																
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:																					
Installation 2 of 7: Digital Interoperability - MANGL																															
Manufacturer Information																															
Manufacturer Name: Digital Interoperability - MANGL										Manufacturer Location: N/A																					
Administrative Leadtime (in Months): 6										Production Leadtime (in Months): 7																					
Dates		FY 2018			FY 2019			FY 2020			FY 2021			FY 2022			FY 2023			FY 2024											
Contract Dates								Mar 2020			Mar 2021			Mar 2022			Mar 2023			Mar 2024											
Delivery Dates								Oct 2020			Oct 2021			Oct 2022			Oct 2023			Oct 2024											
Installation Information																															
Method of Implementation: Contractor Drive-In Mod:: Installation Name: Digital Interoperability - MANGL																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -	- / -									
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -	- / -									
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		12 / 2.592		- / -		- / -		- / -		0 / 0.000	12 / 2.592									
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.644		- / -		- / -		0 / 0.000	12 / 2.644									
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.697		- / -		0 / 0.000	12 / 2.697									
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.750		0 / 0.000	12 / 2.750									
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.805	12 / 2.805									
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		277 / 68.942	277 / 68.942									
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.592		12 / 2.644		12 / 2.697		12 / 2.750	289 / 71.747	337 / 82.430								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	3	3	3	3	3	3	289	337	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	292	337	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																													
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)																				
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																									
Installation 3 of 7: FLIR ELAP																																								
Manufacturer Information																																								
Manufacturer Name: FLIR ELAP														Manufacturer Location: N/A																										
Administrative Leadtime (in Months): 3														Production Leadtime (in Months): 5																										
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024														
Contract Dates						Dec 2018				Dec 2019				Dec 2020				Dec 2021																						
Delivery Dates						May 2019				May 2020				May 2021				May 2022																						
Installation Information																																								
Method of Implementation: Contractor Field Modification:: Installation Name: FLIR ELAP																																								
Installation Cost		Prior Years	FY 2018				FY 2019				FY 2020 Base				FY 2020 OCO				FY 2020 Total				FY 2021				FY 2022				FY 2023				FY 2024				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)				
Prior Years		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2018		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2019		- / -	- / -				144 / 0.864				- / -				- / -				- / -				- / -				- / -				- / -				0 / 0.000	144 / 0.864				
FY 2020		- / -	- / -				- / -				96 / 0.587				0 / 0.000				96 / 0.587				- / -				- / -				- / -				0 / 0.000	96 / 0.587				
FY 2021		- / -	- / -				- / -				- / -				- / -				- / -				92 / 0.573				- / -				- / -				0 / 0.000	92 / 0.573				
FY 2022		- / -	- / -				- / -				- / -				- / -				- / -				- / -				115 / 0.730				- / -				0 / 0.000	115 / 0.730				
FY 2023		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
FY 2024		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
To Complete		- / -	- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -				- / -	- / -				
Total		- / -	- / -				144 / 0.864				96 / 0.587				0 / 0.000				96 / 0.587				92 / 0.573				115 / 0.730				- / -				0 / 0.000	447 / 2.754				
Installation Schedule																																								
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	72	72	-	-	48	48	-	-	46	46	-	-	58	57	-	-	-	-	-	-	-	-	-	447									
Out	-	-	-	-	-	-	-	72	72	-	-	48	48	-	-	46	46	-	-	58	57	-	-	-	-	-	-	-	-	-	447									

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 4 of 7: MCOI BLK C																															
Manufacturer Information																															
Manufacturer Name: MCOI Retrofit BLK C														Manufacturer Location: Redstone, AL																	
Administrative Leadtime (in Months): 6														Production Leadtime (in Months): 7																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						Mar 2019				Mar 2020																					
Delivery Dates						Oct 2019				Oct 2020																					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: MCOI BLK C																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		24 / 2.766		0 / 0.000		24 / 2.766		- / -		- / -		- / -		- / -		0 / 0.000		24 / 2.766								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		13 / 1.527		- / -		- / -		- / -		0 / 0.000		13 / 1.527								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		24 / 2.766		0 / 0.000		24 / 2.766		13 / 1.527		- / -		- / -		- / -		0 / 0.000		37 / 4.293								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	6	6	6	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	-	6	6	6	6	4	4	5	-	-	-	-	-	-	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 5 of 7: Multi Spectral Sensor																															
Manufacturer Information																															
Manufacturer Name: Multi Spectral Sensor															Manufacturer Location: N/A																
Administrative Leadtime (in Months): 4															Production Leadtime (in Months): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																						Jan 2023				Jan 2024					
Delivery Dates																						Jan 2024				Oct 2024					
Installation Information																															
Method of Implementation: Contractor Field Modification:: Installation Name: Multi Spectral Sensor																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 1.800		0 / 0.000		12 / 1.800						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 1.800		12 / 1.800						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		313 / 52.020		313 / 52.020						
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 1.800		325 / 53.820		337 / 55.620						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	4	4	325	337	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	325	337	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 6 of 7: Traffic Collision Avoidance System																															
Manufacturer Information																															
Manufacturer Name: Traffic Collision Avoidance System														Manufacturer Location: Bell Boeing																	
Administrative Leadtime (in Months): 8														Production Leadtime (in Months): 5																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates						May 2019				May 2020				May 2021																	
Delivery Dates						Oct 2019				Oct 2020				Oct 2021																	
Installation Information																															
Method of Implementation: Contractor Forced Retrofit of Components:: Installation Name: Traffic Collision Avoidance System																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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)										
Prior Years		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2019		- / -	- / -		- / -		34 / 1.428		0 / 0.000		34 / 1.428		- / -		- / -		- / -		- / -		0 / 0.000		34 / 1.428								
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		34 / 1.457		- / -		- / -		- / -		0 / 0.000		34 / 1.457								
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		35 / 1.529		- / -		- / -		0 / 0.000		35 / 1.529								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -								
Total		- / -	- / -		- / -		34 / 1.428		0 / 0.000		34 / 1.428		34 / 1.457		35 / 1.529		- / -		- / -		0 / 0.000		103 / 4.414								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	8	9	8	9	8	9	8	9	8	9	9	-	-	-	-	-	-	-	-		
Out	-	-	-	-	-	-	-	-	-	-	9	8	9	8	9	8	9	8	9	8	9	9	-	-	-	-	-	-	-		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 5 / Avionics Improvements (009-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 7 of 7: V-22 Integrated Aircraft Survivability Equip (DV2/LSPR)																															
Manufacturer Information																															
Manufacturer Name: V-22 IASE (DV2/LSPR)															Manufacturer Location: N/A																
Administrative Leadtime (<i>in Months</i>): 4															Production Leadtime (<i>in Months</i>): 9																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Jan 2020				Jan 2021				Jan 2022				Jan 2023				Jan 2024					
Delivery Dates										Oct 2020				Oct 2021				Oct 2022				Oct 2023				Oct 2024					
Installation Information																															
Method of Implementation: Contractor Drive-In Modification:: Installation Name: V-22 Integrated Aircraft Survivability Equip (																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.446		- / -		- / -		- / -		0 / 0.000		12 / 2.446					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.495		- / -		- / -		0 / 0.000		12 / 2.495					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.544		- / -		0 / 0.000		12 / 2.544					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.600		0 / 0.000		12 / 2.600					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 5.707		12 / 5.707					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		148 / 32.009		148 / 32.009					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		12 / 2.446		12 / 2.495		12 / 2.544		12 / 2.600		160 / 37.716		208 / 47.801					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	3	3	3	3	3	3	3	3	3	3	3	160	208
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	163	208
Footnotes:																															
(9) The increase in Other Support from FY 2019 to FY 2020 is for the support costs associated with Digital Interoperability and Integrated Aircraft Survivability Equipment (IASE). These two efforts were previously funded in OSIP 22-01 and migrated to OSIP 09-19 in FY 2020.																															
(10) Training Equipment: Funding required to upgrade Trainers to BLK C configuration.																															
(11) Support Equipment: FY20 increase is due to the V-22 Integrated Aircraft Survivability Equipment requirements.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey						Modification Number / Title: 6 / CMV Interoperability 005-20		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	5.100	0.000	5.100	16.296	10.041	5.112	0.925	0.000	37.474
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	5.100	0.000	5.100	16.296	10.041	5.112	0.925	0.000	37.474
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	5.100	0.000	5.100	16.296	10.041	5.112	0.925	0.000	37.474
<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: OSIP 005-20 is established for the modification of delivered CMV-22s for critical interoperability capabilities including Link-16 for Carrier Strike Group/Expeditionary Strike Group (CSG/ESG)interoperability and secure MILSAT connectivity through integration of Mobile Users Objective System (MUOS). Also any required modifications for compliance with FAR 121-345/347 for Beyond Line of Sight(BLOS)Air Traffic Control(ATC),Required Navigation Performance/Area Navigation (RNP/RNAV) capabilities, and Terrain Awareness and Warning System (TAWS) Link 16/Iridium/Improved intercommunication System - Air to Air Data Link which improves situational awareness and provides secure voice/Text with other Aircraft; as well as communication with Air Traffic Control. ARC-210 - upgrades from the GEN 5 to GEN 6 Radio MUOS - Improves Satellite Communications												

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey					Modification Number / Title: 6 / CMV Interoperability 005-20				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:						
Models of Systems Affected: CMV-22			Modification Type: Safety, Improved Mission Capability					Related RDT&E PEs:					
Financial Plan (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1.1) Link 16/Iridium/Improved Intercommunication System - NonOrganic Installation 1 of 3	- / -	- / -	- / -	- / -	- / -	- / -	6 / 7.200	5 / 6.120	2 / 2.497	- / -	- / -	13 / 15.817	
1.1.2) ARC 210 Radio - NonOrganic Installation 2 of 3	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.060	5 / 0.051	2 / 0.021	- / -	- / -	13 / 0.132	
1.1.3) Mobil User Objective System - NonOrganic Installation 3 of 3	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.606	5 / 0.515	2 / 0.210	- / -	- / -	13 / 1.331	
1.2.1) A Kits Non Recurring - Organic ^(*)	- / -	- / -	- / -	- / 5.100	- / -	- / 5.100	- / -	- / -	- / -	- / -	- / -	- / 5.100	
1.2.2) Link 16/Iridium/Improved Intercommunications System - Organic ^(*)	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.392	5 / 1.183	2 / 0.483	- / -	- / -	13 / 3.058	
Subtotal: Procurement	- / 0.000	- / -	- / -	- / 5.100	- / -	- / 5.100	- / 9.258	- / 7.869	- / 3.211	- / -	- / 0.000	- / 25.438	
Support													
3.1) Training Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.098	- / -	- / -	- / -	- / -	- / 0.098	
3.2) Support Equipment	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.300	- / -	- / -	- / -	- / -	- / 1.300	
3.3) ILS	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.573	- / 0.481	- / 0.417	- / 0.423	- / -	- / 1.894	
3.4) Software Mods - MUOS	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.421	- / -	- / -	- / -	- / -	- / 4.421	
3.5) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.646	- / 0.581	- / 0.540	- / 0.118	- / -	- / 1.885	
Subtotal: Support	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 7.038	- / 1.062	- / 0.957	- / 0.541	- / 0.000	- / 9.598	
Installation													
Installation 1 of 3: Link 16/Iridium/Improved Intercommunication System	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.630	- / 0.536	- / 0.218	- / 0.000	- / 1.384	
Installation 2 of 3: ARC 210 Radio	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.240	- / 0.204	- / 0.083	- / 0.000	- / 0.527	
Installation 3 of 3: Mobil User Objective System	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.240	- / 0.204	- / 0.083	- / 0.000	- / 0.527	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.110	- / 0.944	- / 0.384	- / 0.000	- / 2.438	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	5.100	0.000	5.100	16.296	10.041	5.112	0.925	0.000	37.474	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 6 / CMV Interoperability 005-20											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 3: Link 16/Iridium/Improved Intercommunication System																															
Manufacturer Information																															
Manufacturer Name: Bell-Boeing															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Nov 2020				Nov 2021				Nov 2022									
Delivery Dates														Nov 2021				Nov 2022				Nov 2023									
Installation Information																															
Method of Implementation: Non-Organic:: Installation Name: Link 16/Iridium/Improved Intercommunication System																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.630		- / -		- / -		0 / 0.000		6 / 0.630					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.536		- / -		0 / 0.000		5 / 0.536					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.218		0 / 0.000		2 / 0.218					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.630		5 / 0.536		2 / 0.218		0 / 0.000		13 / 1.384					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	-	2	-	-	-	-	13
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	1	-	2	-	-	-	-	13

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 6 / CMV Interoperability 005-20											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 2 of 3: ARC 210 Radio																															
Manufacturer Information																															
Manufacturer Name: Bell Boeing															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Nov 2020				Nov 2021				Nov 2022									
Delivery Dates														Nov 2021				Nov 2022				Nov 2023									
Installation Information																															
Method of Implementation: Non-Organic:: Installation Name: ARC 210 Radio																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.240		- / -		- / -		0 / 0.000		6 / 0.240						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.204		- / -		0 / 0.000		6 / 0.204						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.083		0 / 0.000		2 / 0.083						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.240		6 / 0.204		2 / 0.083		0 / 0.000		14 / 0.527						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	2	-	-	-	-	14
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	2	-	2	-	-	-	-	14

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0590 / V-22 (Tilt/Rotor Acft) Osprey										Modification Number / Title: 6 / CMV Interoperability 005-20											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 3 of 3: Mobil User Objective System																															
Manufacturer Information																															
Manufacturer Name: Bell-Boeing															Manufacturer Location: TBD																
Administrative Leadtime <i>(in Months)</i> : 2															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Nov 2020				Nov 2021				Nov 2022									
Delivery Dates														Nov 2021				Nov 2022				Nov 2023									
Installation Information																															
Method of Implementation: Non-Organic:: Installation Name: Mobil User Objective System																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.240		- / -		- / -		0 / 0.000		6 / 0.240					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		5 / 0.204		- / -		0 / 0.000		5 / 0.204					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		2 / 0.083		0 / 0.000		2 / 0.083					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		6 / 0.240		5 / 0.204		2 / 0.083		0 / 0.000		13 / 0.527					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	-	2	-	-	-	-	13
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	2	2	1	-	2	-	-	-	-	13

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0604274N	Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: P445

Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
<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 Next Generation Jammer (NGJ) is the next step in the evolution of Airborne Electronic Attack (AEA) and is a critical capability necessary to address current, emerging, and evolving Electronic Warfare gaps, ensure kill chain wholeness against growing threat capabilities and capacity, keep pace with enemy threat weapon systems' advancements, and support the continuous expansion of the AEA mission areas that exceed the capability of currently fielded systems. NGJ will utilize enhanced techniques and tactics to deliver significantly improved radar and communications jamming effectiveness as well as other classified capabilities. Utilizing an Open Systems Architecture that supports software and hardware updates to rapidly counter emergent and evolving threats, NGJ is a key enabler and force multiplier for operations across the spectrum of missions defined in the Defense Strategic Guidance, including strike warfare, projecting power despite anti-access/area denial challenges, and counterinsurgency/irregular warfare. NGJ will also address the shortfalls in scalability, flexibility, supportability, interoperability, availability, and capability of the existing AN/ALQ-99 Tactical Jamming System.

Beginning in FY 2020 NGJ-MB A-kit procurements are required to maintain alignment with H16 hardware procurement and installation, allowing for one major modification period for all advanced Growler installations in FY 2020 and FY 2021. Performing these hardware installations simultaneously will provide cost and schedule efficiencies as aircraft are removed from service, run through major disassembly and reassembly only once, rather than multiple times. The FY 2020 induction of these aircraft for modification allows for fleet integration, tactics development and initial cadre training in preparation for the first fleet operational capability.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)				
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: 0604274N			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: P445										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19) (RELIABILITY / MISSION CAPABILITY)				- / 0.000	- / 0.000	- / 0.000	- / 6.223	- / 0.000	- / 6.223
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 0.000	- / 0.000	- / 6.223	- / 0.000	- / 6.223
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19) (RELIABILITY / MISSION CAPABILITY)				- / 144.670	- / 300.114	- / 468.829	- / 534.055	- / 3,376.955	- / 4,830.846
P-40	Total Gross/Weapon System Cost				- / 144.670	- / 300.114	- / 468.829	- / 534.055	- / 3,376.955	- / 4,830.846
*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 is a FY 2020 new start. The Department of the Navy has been tasked with accomplishing the Nation's AEA mission in various theaters of operation over the last few decades. The AEA capability fielded by the Navy on the EA-18G Growler has been a high demand, low density asset. Stable investment in AEA systems will ensure continued availability of AEA capability to meet warfighter demand. NGJ will address AEA capability and sufficiency gaps against enemy threats operating in all frequency bands of the electromagnetic spectrum. NGJ will provide the ability to effectively engage enemy threats from increased stand-off distances, employ increased capacity (number of jamming assignments) against enemy targets, and support agile employment by operators. The NGJ system will be integrated on the EA-18G tactical aircraft and will augment and then replace the legacy AN/ALQ-99 Tactical Jamming System pods.										

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Exhibit P-3a, Individual Modification: PB 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)					Modification Number / Title: 1 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846
(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/ALQ-249 Next Generation Jammer - Mid Band (NGJ-MB) (formerly known as Next Generation Jammer Increment 1) program will address AEA capability and sufficiency gaps against enemy threats operating in the middle frequency bands of the electromagnetic spectrum. NGJ-MB will provide the ability to effectively engage enemy threats from increased stand-off distances, employ increased capacity (number of jamming assignments) against enemy targets, and support agile employment by operators. The NGJ-MB system will be integrated on the EA-18G tactical aircraft and will augment and then replace the legacy AN/ALQ-99 Tactical Jamming System Mid-Band pods.												
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES Beginning in FY 2020 NGJ-MB A-kit (EA-18G modifications) procurements are required to maintain alignment with H16 hardware procurement and installation, allowing for one major modification period for all advanced Growler installations in FY 2020 and FY 2021. Performing these hardware installations simultaneously will provide cost and schedule efficiencies as aircraft are removed from service, run through major disassembly and reassembly only once, rather than multiple times. The FY 2020 induction of these aircraft for modification allows for fleet integration, tactics development and initial cadre training in preparation for the first fleet operational capability supporting the master aviation plan. Milestone C is scheduled for 4th Quarter FY 2020 with Initial Operational Capability scheduled for 4th Quarter FY 2022.												
FY 2020 NGJ-MB A-kit procurements and installs will be required before Milestone C. On 3 December 2018, the NGJ-MB program received authorization from the Milestone Decision Authority to procure and install NGJ-MB A-Kits into the EA-18G Growler prior to the NGJ-MB Milestone C (4QFY20).												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)					Modification Number / Title: 1 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: EA-18G				Modification Type: RELIABILITY / MISSION CAPABILITY				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)</i>													
A Kits													
Recurring													
1.1.1) NGJ Kits - NonOrganic ⁽¹⁾	- / -	- / -	- / -	28 / 3.395	- / -	28 / 3.395	36 / 4.423	32 / 4.010	32 / 4.091	19 / 2.448	- / -	147 / 18.367	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.395</i>	<i>- / -</i>	<i>- / 3.395</i>	<i>- / 4.423</i>	<i>- / 4.010</i>	<i>- / 4.091</i>	<i>- / 2.448</i>	<i>- / 0.000</i>	<i>- / 18.367</i>	
B Kits													
Recurring													
2.1.1) NGJ Mid-Band Pod Shipset - Organic	- / -	- / -	- / -	- / -	- / -	- / -	1 / 60.092	6 / 214.505	12 / 387.260	14 / 439.424	95 / 2,914.055	128 / 4,015.336	
2.1.2) Non-Recurring - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 42.419	- / 42.419	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 60.092</i>	<i>- / 214.505</i>	<i>- / 387.260</i>	<i>- / 439.424</i>	<i>- / 2,956.474</i>	<i>- / 4,057.755</i>	
<i>Subtotal: Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>28 / 3.395</i>	<i>- / -</i>	<i>28 / 3.395</i>	<i>37 / 64.515</i>	<i>38 / 218.515</i>	<i>44 / 391.351</i>	<i>33 / 441.872</i>	<i>95 / 2,956.474</i>	<i>275 / 4,076.122</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.395</i>	<i>- / -</i>	<i>- / 3.395</i>	<i>- / 64.515</i>	<i>- / 218.515</i>	<i>- / 391.351</i>	<i>- / 441.872</i>	<i>- / 2,956.474</i>	<i>- / 4,076.122</i>	
Support (All Modification Items)													
3.1) Support Equipment ⁽²⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.497	- / 25.600	- / 23.830	- / 28.861	- / 111.390	- / 214.178	
3.2) ILS ⁽³⁾	- / -	- / -	- / -	- / 0.062	- / -	- / 0.062	- / 1.447	- / 3.001	- / 5.589	- / 9.016	- / 37.519	- / 56.634	
3.3) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.806	- / 26.322	- / 26.849	- / 27.386	- / 238.503	- / 344.866	
3.4) Data ⁽⁴⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.533	- / 13.841	- / 8.118	- / 11.909	- / 27.343	- / 68.744	
3.5) Training Equipment ⁽⁵⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.998	- / 1.325	- / 1.351	- / 3.035	- / -	- / 16.709	
<i>Subtotal: Support</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.062</i>	<i>- / -</i>	<i>- / 0.062</i>	<i>- / 70.281</i>	<i>- / 70.089</i>	<i>- / 65.737</i>	<i>- / 80.207</i>	<i>- / 414.755</i>	<i>- / 701.131</i>	
Installation													
<i>Modification Item 1 of 1: Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)</i>	<i>- / 0.000</i>	<i>- / 0.000</i>	<i>- / 0.000</i>	<i>- / 2.766</i>	<i>- / 0.000</i>	<i>- / 2.766</i>	<i>- / 9.874</i>	<i>- / 11.510</i>	<i>- / 11.741</i>	<i>- / 11.976</i>	<i>- / 5.726</i>	<i>- / 53.593</i>	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.766</i>	<i>- / -</i>	<i>- / 2.766</i>	<i>- / 9.874</i>	<i>- / 11.510</i>	<i>- / 11.741</i>	<i>- / 11.976</i>	<i>- / 5.726</i>	<i>- / 53.593</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	6.223	0.000	6.223	144.670	300.114	468.829	534.055	3,376.955	4,830.846	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)										Modification Number / Title: 1 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)																															
Manufacturer Information																															
Manufacturer Name: Boeing Company														Manufacturer Location: St. Louis, MO																	
Administrative Leadtime (in Months): 3														Production Leadtime (in Months): 9																	
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates										Dec 2019				Dec 2020				Dec 2021				Dec 2022				Dec 2023					
Delivery Dates										Sep 2020				Sep 2021				Sep 2022				Sep 2023				Sep 2024					
Installation Information																															
Method of Implementation: Contractor Field Mod Team:: Installation Name: NGJ Kits																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		8 / 2.766		0 / 0.000		8 / 2.766		20 / 7.053		- / -		- / -		- / -		- / -		0 / 0.000		28 / 9.819					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		8 / 2.821		28 / 10.072		- / -		- / -		- / -		0 / 0.000		36 / 12.893					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.438		28 / 10.273		- / -		- / -		0 / 0.000		32 / 11.711					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.468		28 / 10.479		0 / 0.000		32 / 11.947							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		4 / 1.497		15 / 5.726		19 / 7.223							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		- / -		- / -		- / -		8 / 2.766		0 / 0.000		8 / 2.766		28 / 9.874		32 / 11.510		32 / 11.741		32 / 11.976		15 / 5.726		147 / 53.593							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	7	7	6	8	9	9	9	5	8	8	8	8	8	8	8	8	15	147
Out	-	-	-	-	-	-	-	-	-	-	-	-	8	7	7	6	8	9	9	9	5	8	8	8	8	8	8	8	8	15	147
Method of Implementation (Organic): NGJ Mid-Band Pod Shipset - Not Installed																															
															Installation Quantity: 128																
Footnotes:																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0591 / Next Generation Jammer (NGJ)	Modification Number / Title: 1 / Next Generation Jammer Mid-Band (NGJ-MB) (OSIP 002-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(1) Beginning in FY 2020 NGJ-MB A-kit (EA-18G modifications) procurements are required to maintain alignment with H16 hardware procurement and installation, allowing for one major modification period for all advanced Growler installations in FY 2020 and FY 2021. Performing these hardware installations simultaneously will provide cost and schedule efficiencies as aircraft are removed from service, allowing them to run through major disassembly and reassembly only once, rather than multiple times. The FY 2020 induction of these aircraft for modification allows for fleet integration, tactics development, and initial cadre training in preparation for the first fleet operational capability. On 3 December 2018, the NGJ-MB program received authorization from the Milestone Decision Authority to procure and install NGJ-MB A-Kits into the EA-18G Growler prior to the NGJ-MB Milestone C (4QFY20). (2) The Peculiar Support Equipment requirement for Operational/Intermediate/Depot-Level Support is determined from the Support Equipment/Operational Test Program Set requirement and corresponding quantities to support the Carrier Air Wing, Expeditionary, and Reserve squadrons. Phasing of support equipment is based on when squadron stand-up occurs to achieve the Navy Support Date of FY 2026. (3) Phasing of ILS is based on when squadron stand-up occurs to achieve the Navy Support Date of FY 2026. (4) The requirement for Operational/Intermediate/Depot-Level technical manuals is determined by the quantity of pages and the cost per page. Phasing of data is based on when squadron stand-up occurs to achieve the Navy Support Date of FY 2026. (5) Phasing of Training Equipment is based on IOC and first deployment.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0592 / F-35 STOVL Series					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: 0604800M, 0604810M, 0604840M				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: 198												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	550.761	34.963	36.618	65.585	0.000	65.585	47.545	67.429	55.402	61.693	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	550.761	34.963	36.618	65.585	0.000	65.585	47.545	67.429	55.402	61.693	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	550.761	34.963	36.618	65.585	0.000	65.585	47.545	67.429	55.402	61.693	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 F-35B Program will develop and deploy a family of highly common, affordable, next generation, stealthy, multi-role strike fighters that meet the needs of multiple services and countries. The United States Marine Corps Short Take Off and Vertical Landing (STOVL) correction of deficiencies effort provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field and depot retrofit. In order to meet emerging deficiencies the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate concurrency changes to sustain and improve F-35B system operations. Concurrency changes are implemented to coincide with resources and aircraft availability. Block upgrades provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35B platform. Structural upgrades enable airframe to meet service life requirements. This modification program will bring early production aircraft and integrated systems to a common fleet configuration as fielded capabilities evolve over the course of the F-35 program. The modification funding requested in FY20 enables several distinct efforts pertaining to the Marine F-35B aircraft to include post aircraft delivery concurrency retrofits, to correct deficiencies, the block upgrade of hardware and software to a Block 3F configuration, block 4 capability, and structural upgrades. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES The overlap of development with production and operations results in the need to manage a concurrency program and conduct retrofits on jets with life-limited parts or impacts to capabilities. Block 3i Fleet Release occurred 4th Qtr FY15.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0592 / F-35 STOVL Series			
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: 0604800M, 0604810M, 0604840M			Other Related Program Elements: N/A		
Line Item MDAP/MAIS Code: 198									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14) (Capability Improvement)				- / 166.687	- / 1.662	- / 3.570	- / 2.575	- / 0.000	- / 2.575
P-3a	2 / F-35 STOVL CONCURRENCY (OSIP 023-14) (Capability Improvement)				- / 384.074	- / 33.301	- / 32.081	- / 47.431	- / 0.000	- / 47.431
P-3a	3 / F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19) (Capability Improvement)				- / 0.000	- / 0.000	- / 0.967	- / 3.882	- / 0.000	- / 3.882
P-3a	4 / F-35 STOVL PROPULSION (OSIP 010-20) (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 7.697	- / 0.000	- / 7.697
P-3a	5 / F-35 STOVL Block 4 Upgrade (OSIP 012-20) (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 4.000	- / 0.000	- / 4.000
P-3a	6 / F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21) (Capability Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 550.761	- / 34.963	- / 36.618	- / 65.585	- / 0.000	- / 65.585

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14) (Capability Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 174.494
P-3a	2 / F-35 STOVL CONCURRENCY (OSIP 023-14) (Capability Improvement)				- / 25.930	- / 50.257	- / 35.898	- / 43.280	Continuing	Continuing
P-3a	3 / F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19) (Capability Improvement)				- / 5.031	- / 5.123	- / 5.358	- / 5.520	- / 0.000	- / 25.881
P-3a	4 / F-35 STOVL PROPULSION (OSIP 010-20) (TBD)				- / 7.666	- / 8.535	- / 10.548	- / 9.211	- / 0.000	- / 43.657
P-3a	5 / F-35 STOVL Block 4 Upgrade (OSIP 012-20) (TBD)				- / 5.300	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 9.300
P-3a	6 / F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21) (Capability Improvement)				- / 3.618	- / 3.514	- / 3.598	- / 3.682	- / 0.000	- / 14.412
P-40	Total Gross/Weapon System Cost				- / 47.545	- / 67.429	- / 55.402	- / 61.693	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:
 Basis for FY 2020 budget request: Beginning of FY20 F-35B Total Active Inventory is 87 aircraft. FY 2020 funding is requested for kits to support Structural Life Limited Parts Group 2 (SLLP2), installation of LRIP 2-5 JSF F-35B to Block 3i configuration and for the highest priority concurrency modifications in support of IOT&E and USMC operations.

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series				Modification Number / Title: 1 / F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	166.687	1.662	3.570	2.575	0.000	2.575	0.000	0.000	0.000	0.000	0.000	174.494
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	166.687	1.662	3.570	2.575	0.000	2.575	0.000	0.000	0.000	0.000	0.000	174.494
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	166.687	1.662	3.570	2.575	0.000	2.575	0.000	0.000	0.000	0.000	0.000	174.494
(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 block upgrade program retrofits United States Marine Corps F-35B aircraft and integrated systems procured under the Low Rate Initial Production (LRIP) contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration.

This effort (OSIP 015-14) focuses on upgrading Blocks 1B, 2A, and 2B aircraft from LRIPs 2-5 to a Block 3i configuration. Block 3i is a stepping stone to the Block 3F configuration. It includes the procurement of Tech Refresh 2 (TR2) hardware for the Block 3i configuration. The parts include new radar modules, new Integrated Core Processor (ICP) modules and rack, and new Electronic Warfare (EW) modules. The Gen III Helmet will also be introduced as part of the Block 3i upgrade. This effort includes tooling and test equipment for Military Service Depots to support the execution of the Block Upgrade program.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES

Block 3i Software Fleet Release occurred 4th Qtr FY15. TR-2 Kit material delivery began 4th Qtr FY17.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0592 / F-35 STOVL Series					Modification Number / Title: 1 / F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 STOVL				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800M					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)													
B Kits													
Recurring													
1.1.1) EQUIPMENT Block 3i - NonOrganic ⁽¹⁾	27 / 127.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 127.660	
<i>Subtotal: Recurring</i>	- / 127.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 127.660	
<i>Subtotal: F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)</i>	27 / 127.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 127.660	
<i>Subtotal: Procurement, All Modification Items</i>	- / 127.660	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 127.660	
Support (All Modification Items)													
2.1) ILS	- / 13.545	- / 0.236	- / 0.287	- / 0.040	- / -	- / 0.040	- / -	- / -	- / -	- / -	- / -	- / 14.108	
2.2) Other Support	- / 16.126	- / 0.214	- / 0.854	- / 0.521	- / -	- / 0.521	- / -	- / -	- / -	- / -	- / -	- / 17.715	
2.3) Training Equipment	- / 9.234	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.234	
<i>Subtotal: Support</i>	- / 38.905	- / 0.450	- / 1.141	- / 0.561	- / -	- / 0.561	- / -	- / -	- / -	- / -	- / 0.000	- / 41.057	
Installation													
<i>Modification Item 1 of 1:</i> F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)	- / 0.122	- / 1.212	- / 2.429	- / 2.014	- / 0.000	- / 2.014	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 5.777	
<i>Subtotal: Installation</i>	- / 0.122	- / 1.212	- / 2.429	- / 2.014	- / -	- / 2.014	- / -	- / -	- / -	- / -	- / 0.000	- / 5.777	
Total													
Total Cost (Procurement + Support + Installation)	166.687	1.662	3.570	2.575	0.000	2.575	0.000	0.000	0.000	0.000	0.000	174.494	

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0592 / F-35 STOVL Series										Modification Number / Title: 1 / F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: F-35 STOVL BLOCK 3i/3F UPGRADE (OSIP 015-14)																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin															Manufacturer Location: Fort Worth, TX																
Administrative Leadtime (<i>in Months</i>): 11															Production Leadtime (<i>in Months</i>): 39																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Depot Field Team:: Installation Name: Block 3i																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.122		6 / 1.212		11 / 2.429		9 / 2.014		0 / 0.000		9 / 2.014		- / -		- / -		- / -		- / -		0 / 0.000		27 / 5.777							
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -							
Total		1 / 0.122		6 / 1.212		11 / 2.429		9 / 2.014		0 / 0.000		9 / 2.014		- / -		- / -		- / -		- / -		0 / 0.000		27 / 5.777							
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	2	3	3	3	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Out	1	1	1	2	2	2	3	3	3	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Footnotes: ⁽¹⁾ Prior Years (FY15) contract award date is September 2015, with deliveries beginning in 4th Qtr FY17 . The funding associated with these Block 3i kits is inclusive of Block 3i hardware and software. Installation costs increase from FY17 to FY18 as the program directly funds the depots to assist in completing the installations. The Installation cost for FY18 increased \$0.036M and associated ILS and Other Support increased \$0.236M and \$0.214M respectively compared to PB18 request as the cost to install the Block 3i kits and associated labor had been historically erroneously reflected in OSIP 005-16.																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series				Modification Number / Title: 2 / F-35 STOVL CONCURRENCY (OSIP 023-14)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	384.074	33.301	32.081	47.431	0.000	47.431	25.930	50.257	35.898	43.280	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	384.074	33.301	32.081	47.431	0.000	47.431	25.930	50.257	35.898	43.280	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	384.074	33.301	32.081	47.431	0.000	47.431	25.930	50.257	35.898	43.280	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 Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This effort (OSIP 023-14) funds retrofits due to concurrency changes to correct deficiencies discovered after DD-250 of the last aircraft in a given production lot. This includes modifications required to extend aircraft service life currently limited by low-life parts, and relieve capability limitations driven by concurrency of production with development.

The concurrency funding line will procure the highest priority modifications from the Tri-Service Modification Prioritization List, as they become supportable from an engineering, production, and installation standpoint. The list is vetted by the Services and Partners every 6 months to ensure the list accurately reflects existing requirements as well as emerging issues. Per-kit costs will vary for each modification being implemented, and in some cases will also vary for aircraft from different LRIP lots to implement an individual modification.

Total cost reflects procurement and installation costs in each fiscal year. Support costs include overall modification program planning, scheduling, management, recurring engineering; and support of Military and Service Depots and Depot Field Teams for incorporation of modifications.

There are currently over 265 identified highest priority modifications throughout the STOVL fleet using funds from this OSIP.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series						Modification Number / Title: 2 / F-35 STOVL CONCURRENCY (OSIP 023-14)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 STOVL				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800M					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: F-35 STOVL CONCURRENCY (OSIP 023-14)													
A Kits													
Recurring													
1.1.1) Structures - Organic ⁽²⁾	- / 144.460	- / 10.238	- / 11.866	- / 23.355	- / -	- / 23.355	- / 6.660	- / 28.922	- / 13.341	- / 25.021	Continuing	Continuing	
1.1.2) Concurrency - Organic	- / 37.302	- / -	- / -	- / 7.000	- / -	- / 7.000	- / -	- / -	- / -	- / -	- / -	- / 44.302	
1.1.3) Mission Systems - Organic	- / 31.746	- / 3.624	- / 4.874	- / 4.125	- / -	- / 4.125	- / 5.874	- / 6.684	- / 6.987	- / 3.987	Continuing	Continuing	
1.1.4) Vehicle Systems - Organic	- / 39.573	- / 8.620	- / 3.823	- / 4.699	- / -	- / 4.699	- / 3.954	- / 4.857	- / 5.332	- / 5.807	Continuing	Continuing	
1.1.5) Propulsion - Organic ⁽³⁾	- / 106.144	- / 8.630	- / 4.654	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 119.428	
Subtotal: Recurring	- / 359.225	- / 31.112	- / 25.217	- / 39.179	- / -	- / 39.179	- / 16.488	- / 40.463	- / 25.660	- / 34.815	Continuing	Continuing	
B Kits													
Recurring													
2.1.1) Concurrency COD - Organic	- / -	- / -	- / -	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 3.303	- / -	- / 22.697	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 3.303	- / 0.000	- / 22.697	
Subtotal: F-35 STOVL CONCURRENCY (OSIP 023-14)	- / 359.225	- / 31.112	- / 25.217	- / 43.061	- / -	- / 43.061	- / 21.519	- / 45.586	- / 31.018	- / 38.118	Continuing	Continuing	
Subtotal: Procurement, All Modification Items	- / 359.225	- / 31.112	- / 25.217	- / 43.061	- / -	- / 43.061	- / 21.519	- / 45.586	- / 31.018	- / 38.118	Continuing	Continuing	
Support (All Modification Items)													
3.1) ILS	- / 16.202	- / 1.268	- / 5.654	- / 3.105	- / -	- / 3.105	- / 2.246	- / 2.464	- / 2.356	- / 2.321	Continuing	Continuing	
3.2) Other Support	- / 8.647	- / 0.921	- / 1.210	- / 1.265	- / -	- / 1.265	- / 2.165	- / 2.207	- / 2.524	- / 2.841	Continuing	Continuing	
Subtotal: Support	- / 24.849	- / 2.189	- / 6.864	- / 4.370	- / -	- / 4.370	- / 4.411	- / 4.671	- / 4.880	- / 5.162	Continuing	Continuing	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	384.074	33.301	32.081	47.431	0.000	47.431	25.930	50.257	35.898	43.280	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy				Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1			P-1 Line Item Number / Title: 0592 / F-35 STOVL Series			Modification Number / Title: 2 / F-35 STOVL CONCURRENCY (OSIP 023-14)	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:			
Modification Item 1 of 1: F-35 STOVL CONCURRENCY (OSIP 023-14)							
Manufacturer Information							
Manufacturer Name: Various ⁽⁴⁾				Manufacturer Location: Various			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Contract Dates							
Delivery Dates							

Footnotes:

⁽²⁾ Cost varies from year to year based on complexity of modifications and aircraft availability to perform modifications as required. Fact of Life adjustment is added for the Full Motion Video (FMV) capability. This effort started in FY18 and continues through FY23. FMV provides the capability to pass real-time video from aircraft to ground units to support Close Air Support (CAS). This is an existing capability on current fleet aircraft that is required to support ground operations.

⁽³⁾ Propulsion funding will transfer to the Propulsion OSIP 010-20 in FY20.

⁽⁴⁾ Quantities and installation dates will vary with each concurrency modification.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0592 / F-35 STOVL Series					Modification Number / Title: 3 / F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.967	3.882	0.000	3.882	5.031	5.123	5.358	5.520	0.000	25.881
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.967	3.882	0.000	3.882	5.031	5.123	5.358	5.520	0.000	25.881
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.967	3.882	0.000	3.882	5.031	5.123	5.358	5.520	0.000	25.881
<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: F-35 STOVL Correction of Deficiencies provides near and long term improvements to fielded F-35 jets, and focuses on correcting documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field retrofit performed by contractor artisans and organic support. In order to meet emerging deficiencies, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve F-35 STOVL system operations. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35 STOVL platform. This modification program may be required to provide timely remedial action for any aircraft system, component or structure. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The establishment of this OSIP is concurrent with the phase out of SDD in FY18 and after the declaration of IOC for the USMC, which was declared in July FY15. This OSIP will fund the incorporation of ECPs that are not associated with the concurrency program.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series						Modification Number / Title: 3 / F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 STOVL				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800M					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)</i>													
<i>B Kits</i>													
<i>Recurring</i>													
2.1.1) Correction of Defeciencies - Organic ⁽⁵⁾	- / -	- / -	- / 0.967	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 5.520	- / -	- / 25.881	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 0.967	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 5.520	- / 0.000	- / 25.881	
<i>Subtotal: F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)</i>	- / -	- / -	- / 0.967	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 5.520	- / -	- / 25.881	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 0.967	- / 3.882	- / -	- / 3.882	- / 5.031	- / 5.123	- / 5.358	- / 5.520	- / 0.000	- / 25.881	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.967	3.882	0.000	3.882	5.031	5.123	5.358	5.520	0.000	25.881	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0592 / F-35 STOVL Series	Modification Number / Title: 3 / F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-35 STOVL CORRECTION OF DEFICIENCIES (OSIP 004-19)		
Footnotes: ⁽⁵⁾ Cost varies from year to year based on complexity of modifications and aircraft availability to perform modifications as required.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0592 / F-35 STOVL Series					Modification Number / Title: 4 / F-35 STOVL PROPULSION (OSIP 010-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.697	0.000	7.697	7.666	8.535	10.548	9.211	0.000	43.657
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.697	0.000	7.697	7.666	8.535	10.548	9.211	0.000	43.657
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	7.697	0.000	7.697	7.666	8.535	10.548	9.211	0.000	43.657
<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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: This Propulsion Program is established for the correction of engine related readiness degraders impacting F-35 STOVL Reliability Maintainability and Availability (RM&A), production deficiencies, obsolescence, and reduction of life-cycle costs. These modifications (MODs) will be accomplished by field or depot retrofit and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the propulsion systems must be modified as critical RM&A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35 STOVL F-135 engine.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series						Modification Number / Title: 4 / F-35 STOVL PROPULSION (OSIP 010-20)			
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: F-35 STOVL PROPULSION (OSIP 010-20)													
A Kits													
Recurring													
1.1.1) Propulsion A Kits - NonOrganic	- / -	- / -	- / -	- / 3.849	- / -	- / 3.849	- / 3.654	- / 3.696	- / 4.674	- / 5.694	- / -	- / 21.567	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 3.849	- / -	- / 3.849	- / 3.654	- / 3.696	- / 4.674	- / 5.694	- / 0.000	- / 21.567	
B Kits													
Recurring													
2.1.1) Propulsion Kits - NonOrganic	- / -	- / -	- / -	23 / 3.548	- / -	23 / 3.548	23 / 3.007	23 / 3.834	40 / 4.869	23 / 2.512	- / -	132 / 17.770	
Subtotal: Recurring	- / 0.000	- / -	- / -	- / 3.548	- / -	- / 3.548	- / 3.007	- / 3.834	- / 4.869	- / 2.512	- / 0.000	- / 17.770	
Subtotal: F-35 STOVL PROPULSION (OSIP 010-20)	- / -	- / -	- / -	23 / 7.397	- / -	23 / 7.397	23 / 6.661	23 / 7.530	40 / 9.543	23 / 8.206	- / -	132 / 39.337	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / 7.397	- / -	- / 7.397	- / 6.661	- / 7.530	- / 9.543	- / 8.206	- / 0.000	- / 39.337	
Support (All Modification Items)													
3.1) Other Support	- / -	- / -	- / -	- / 0.300	- / -	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / -	- / 1.500	
Subtotal: Support	- / 0.000	- / -	- / -	- / 0.300	- / -	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 0.300	- / 0.000	- / 1.500	
Installation													
Modification Item 1 of 1: F-35 STOVL PROPULSION (OSIP 010-20)	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.705	- / 0.705	- / 0.705	- / 0.705	- / 0.000	- / 2.820	
Subtotal: Installation	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.705	- / 0.705	- / 0.705	- / 0.705	- / 0.000	- / 2.820	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	7.697	0.000	7.697	7.666	8.535	10.548	9.211	0.000	43.657	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0592 / F-35 STOVL Series	Modification Number / Title: 4 / F-35 STOVL PROPULSION (OSIP 010-20)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: F-35 STOVL PROPULSION (OSIP 010-20)

Installation Information

Method of Implementation: Depot Field Team:: Installation Name: Propulsion

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.000	- / -	- / -	- / -	0 / 0.000	23 / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.705	- / -	- / -	- / -	0 / 0.000	23 / 0.705
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.705	- / -	- / -	0 / 0.000	23 / 0.705
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.705	17 / 0.000	0 / 0.000	40 / 0.705
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.705	0 / 0.000	23 / 0.705
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	46 / 0.705	23 / 0.705	23 / 0.705	40 / 0.705	0 / 0.000	132 / 2.820

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	-	-	23	-	-	-	23	-	-	40	-	-	-	-	132
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	-	-	-	23	-	-	-	23	-	40	-	-	-	-	132

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Exhibit P-3a, Individual Modification: PB 2020 Navy						Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series				Modification Number / Title: 5 / F-35 STOVL Block 4 Upgrade (OSIP 012-20)			

ID Code (A=Service Ready, B=Not Service Ready) :						MDAP/MAIS Code:						
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.000	0.000	4.000	5.300	0.000	0.000	0.000	0.000	9.300
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.000	0.000	4.000	5.300	0.000	0.000	0.000	0.000	9.300
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	0.000	0.000	4.000	0.000	4.000	5.300	0.000	0.000	0.000	0.000	9.300
<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:

This Block 4 Program is established to retrofit advanced capabilities on the F-35s to increase the capability and lethality of the weapon system for the warfighter. Funding is required to upgrade Low Rate Initial Production (LRIP) 11-14 aircraft. Block 4 capability is planned to deliver through a Continuous Capability Development and Delivery Concept which entails upgrades to both hardware and software on fielded aircraft. These modifications (MODs) will be accomplished incrementally by field or depot retrofit and implemented to coincide with resources and aircraft availability. This effort includes but not limited to Band 2/5, Digital Tuner Insertion Program (DTIP), and weapons bay modifications. Initial funding support planning and integration activities of these component's efforts include delta engineering, airworthiness, time compliance, technical data, and program support.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series						Modification Number / Title: 5 / F-35 STOVL Block 4 Upgrade (OSIP 012-20)			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1) Block 4 Kits - NonOrganic <i>Installation 1 of 1</i>	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.000	- / -	- / -	- / -	- / -	1 / 2.000	
1.1.1) Block 4 NRE - Organic ^(*)	- / -	- / -	- / -	- / 3.500	- / -	- / 3.500	- / -	- / -	- / -	- / -	- / -	- / 3.500	
<i>Subtotal: Procurement</i>	- / 0.000	- / -	- / -	- / 3.500	- / -	- / 3.500	- / 2.000	- / -	- / -	- / -	- / 0.000	- / 5.500	
Support													
2.1) ILS	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / 0.500	
2.2) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.300	- / -	- / -	- / -	- / -	- / 0.300	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 0.300	- / -	- / -	- / -	- / 0.000	- / 0.800	
Installation													
<i>Installation 1 of 1:</i> Block 4 Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.000	- / -	- / -	- / -	- / 0.000	- / 3.000	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 3.000	- / -	- / -	- / -	- / 0.000	- / 3.000	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	4.000	0.000	4.000	5.300	0.000	0.000	0.000	0.000	9.300	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0592 / F-35 STOVL Series										Modification Number / Title: 5 / F-35 STOVL Block 4 Upgrade (OSIP 012-20)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: Block 4 Kits																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: Various																
Administrative Leadtime (<i>in Months</i>): 12															Production Leadtime (<i>in Months</i>): 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2019																	
Delivery Dates														Dec 2021																	
Installation Information																															
Method of Implementation: Contract, Depot activities:: Installation Name: Block 4 Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		1 / 3.000		- / -		- / -		- / -		- / -		0 / 0.000		1 / 3.000						
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		- / -		- / -		- / -		1 / 3.000		- / -		- / -		- / -		- / -		0 / 0.000		1 / 3.000						
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0592 / F-35 STOVL Series					Modification Number / Title: 6 / F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	3.618	3.514	3.598	3.682	0.000	14.412
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	3.618	3.514	3.598	3.682	0.000	14.412
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	3.618	3.514	3.598	3.682	0.000	14.412
<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: This Operational Safety Improvement Program is established for the correction of readiness degraders impacting F-35 STOVL cost per flight hour, Reliability Maintainability and Availability (RM&A), obsolescence, and reduction of life-cycle costs. These modifications will be accomplished by field mod team and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the airframe and integrated systems must be modified as critical RM&A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP's). Individual ECP's will be listed once identified. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35 STOVL Aircraft platform.												

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0592 / F-35 STOVL Series						Modification Number / Title: 6 / F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: [No Model Specified]				Modification Type: Capability Improvement				Related RDT&E PEs:					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1:</i> F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)													
B Kits													
Recurring													
2.1.1) Reliability and Maintainability - Organic ⁽⁶⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.618	- / 3.514	- / 3.598	- / 3.682	- / -	- / 14.412	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.618</i>	<i>- / 3.514</i>	<i>- / 3.598</i>	<i>- / 3.682</i>	<i>- / 0.000</i>	<i>- / 14.412</i>	
<i>Subtotal: F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.618</i>	<i>- / 3.514</i>	<i>- / 3.598</i>	<i>- / 3.682</i>	<i>- / -</i>	<i>- / 14.412</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.618</i>	<i>- / 3.514</i>	<i>- / 3.598</i>	<i>- / 3.682</i>	<i>- / 0.000</i>	<i>- / 14.412</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	3.618	3.514	3.598	3.682	0.000	14.412	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0592 / F-35 STOVL Series	Modification Number / Title: 6 / F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-35 STOVL RELIABILITY AND MAINTAINABILITY (OSIP 009-21)		
Footnotes: ⁽⁶⁾ Cost varies from year to year based on complexity of modifications and aircraft availability to perform modifications as required.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0593 / F-35 CV Series					
ID Code (A=Service Ready, B=Not Service Ready): A				Program Elements for Code B Items: 0604800N, 0604810N, 0604840N				Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: 198												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	120.712	31.689	21.236	15.358	0.000	15.358	12.169	13.323	13.001	13.319	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	120.712	31.689	21.236	15.358	0.000	15.358	12.169	13.323	13.001	13.319	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	120.712	31.689	21.236	15.358	0.000	15.358	12.169	13.323	13.001	13.319	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 F-35C Program will develop and deploy a family of highly common, affordable, next generation, stealthy, multi-role strike fighters that meet the needs of multiple services and countries. The United States Navy Carrier Variant (CV) correction of deficiencies effort provides near and long term improvements to the fleet, focusing on documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field and depot retrofit. In order to meet emerging deficiencies the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate concurrency changes to sustain and improve F-35B system operations. Concurrency changes are implemented to coincide with resources and aircraft availability. Block upgrades provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35C platform. Structural upgrades enable airframe to meet service life requirements. This modification program will bring early production aircraft and integrated systems to a common fleet configuration as fielded capabilities evolve over the course of the F-35 program.												
The modification funding requested in FY20 enables several distinct efforts pertaining to the Navy F-35C aircraft to include post aircraft delivery concurrency retrofits, to correct deficiencies, the block upgrade of hardware and software to a Block 3F configuration, block 4 capability, and structural upgrades.												
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES												
The overlap of development with production and operations results in the need to manage a concurrency program and conduct retrofits on jets with life-limited parts or impacts to capabilities. Block 3i Fleet Release occurred 4th Qtr FY15.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019	
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0593 / F-35 CV Series			
ID Code (A=Service Ready, B=Not Service Ready): A			Program Elements for Code B Items: 0604800N, 0604810N, 0604840N			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: 198									

Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14) (Capability Improvement)				- / 56.809	- / 2.134	- / 2.482	- / 0.000	- / 0.000	- / 0.000
P-3a	2 / F-35 CV CONCURRENCY (OSIP 024-14) (Capability Improvement)				- / 63.903	- / 29.555	- / 17.540	- / 7.539	- / 0.000	- / 7.539
P-3a	3 / F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21) (Capability Improvement)				- / 0.000	- / 0.000	- / 1.214	- / 1.260	- / 0.000	- / 1.260
P-3a	4 / F-35 CV PROPULSION (OSIP 013-20) (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 4.559	- / 0.000	- / 4.559
P-3a	5 / F-35 CV Block 4 Upgrade (OSIP 011-20) (TBD)				- / 0.000	- / 0.000	- / 0.000	- / 2.000	- / 0.000	- / 2.000
P-3a	6 / F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21) (Capability Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-40	Total Gross/Weapon System Cost				- / 120.712	- / 31.689	- / 21.236	- / 15.358	- / 0.000	- / 15.358

Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14) (Capability Improvement)				- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 61.425
P-3a	2 / F-35 CV CONCURRENCY (OSIP 024-14) (Capability Improvement)				- / 2.262	- / 6.581	- / 7.370	- / 10.009	Continuing	Continuing
P-3a	3 / F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21) (Capability Improvement)				- / 1.000	- / 1.500	- / 1.542	- / 1.590	Continuing	Continuing
P-3a	4 / F-35 CV PROPULSION (OSIP 013-20) (TBD)				- / 2.607	- / 3.588	- / 2.402	- / 0.000	Continuing	Continuing
P-3a	5 / F-35 CV Block 4 Upgrade (OSIP 011-20) (TBD)				- / 5.300	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 7.300
P-3a	6 / F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21) (Capability Improvement)				- / 1.000	- / 1.654	- / 1.687	- / 1.720	Continuing	Continuing
P-40	Total Gross/Weapon System Cost				- / 12.169	- / 13.323	- / 13.001	- / 13.319	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:
 Basis for FY 2020 budget request: Beginning FY20 F-35C Total Active Inventory is 44 aircraft. FY 2020 funding is requested for kits to support Structural Life Limited Parts Group 2 (SLLP2), installation of LRIP 2-5 JSF F-35C to Block 3i configuration and for the highest priority concurrency modifications in support of IOT&E and USN operations.

The FY 2020 funding request was reduced by \$0.885M to account for the availability of prior year execution balances.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 1 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	56.809	2.134	2.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.425
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	56.809	2.134	2.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.425
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	56.809	2.134	2.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.425
<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 block upgrade program retrofits United States Navy F-35C aircraft and integrated systems procured under the Low Rate Initial Production (LRIP) contracts to a final Block 3F configuration. The retrofits to enable the final Block 3F configuration are comprised of hardware and software. The hardware per aircraft includes new radar modules, new Integrated Core Processor modules and rack, and new electronic warfare modules. Aircraft need to be updated to a final Block 3F configuration to avoid cost associated with maintaining multiple configurations of aircraft at operating locations. Some will require multiple modifications to reach the final Block 3F configuration. This effort (OSIP 016-14) focuses on upgrading Blocks 1B, 2A, and 2B aircraft from LRIPs 2-5 to a Block 3i configuration. Block 3i is a stepping stone to the Block 3F configuration. It includes the procurement of Tech Refresh 2 (TR2) hardware for the Block 3i configuration. The parts include new radar modules, new Integrated Core Processor (ICP) modules and rack, and new Electronic Warfare (EW) modules. The Gen III Helmet will also be introduced as part of the Block 3i upgrade. This effort includes tooling and test equipment for Military Service Depots to support the execution of the Block Upgrade program. DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES Block 3i Software Fleet Release occurred 4th Qtr FY15. TR-2 Kit material delivery began 4th Qtr FY17.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019							
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series								Modification Number / Title: 1 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:								
Models of Systems Affected: F-35 CV				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800N							
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)															
B Kits															
Recurring															
1.1.1) EQUIPMENT Block 3i - NonOrganic ⁽¹⁾	12 / 44.720	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 44.720			
Subtotal: Recurring	- / 44.720	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 44.720			
Subtotal: F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)	12 / 44.720	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 44.720			
Subtotal: Procurement, All Modification Items	- / 44.720	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 44.720			
Support (All Modification Items)															
2.1) ILS	- / 3.916	- / 0.166	- / 0.187	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.269			
2.2) Other Support	- / 4.676	- / 0.663	- / 0.754	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.093			
2.3) Training Equipment	- / 3.175	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.175			
Subtotal: Support	- / 11.767	- / 0.829	- / 0.941	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 13.537			
Installation															
Modification Item 1 of 1: F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)	- / 0.322	- / 1.305	- / 1.541	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 3.168			
Subtotal: Installation	- / 0.322	- / 1.305	- / 1.541	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 3.168			
Total															
Total Cost (Procurement + Support + Installation)	56.809	2.134	2.482	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	61.425			

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019																					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0593 / F-35 CV Series										Modification Number / Title: 1 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Modification Item 1 of 1: F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)																															
Manufacturer Information																															
Manufacturer Name: Lockheed Martin															Manufacturer Location: Fort Worth, TX																
Administrative Leadtime (<i>in Months</i>): 11															Production Leadtime (<i>in Months</i>): 31																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates																															
Delivery Dates																															
Installation Information																															
Method of Implementation: Depot Field Team:: Installation Name: Block 3i																															
Installation Cost		Prior Years		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		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 / 0.322		4 / 1.305		6 / 1.541		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 3.168					
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2019		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2020		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2021		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2022		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2023		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
FY 2024		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
To Complete		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -					
Total		2 / 0.322		4 / 1.305		6 / 1.541		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		0 / 0.000		12 / 3.168					
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	2	1	1	1	1	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Footnotes: ⁽¹⁾ Prior Years (FY15) contract award date was Sept 2015, with deliveries beginning in 4th Qtr 2017. Programmatic delays in the contract award of Block 2B of eighteen (18) months, along with a delay in the development of Block 3i Hardware led to a delay in execution of FY15 funding. The funding associated with these Block 3i kits is inclusive of Block 3i hardware and software. Installation costs increase from																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0593 / F-35 CV Series	Modification Number / Title: 1 / F-35 CV BLOCK 3i/3F UPGRADE (OSIP 016-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
FY17 to FY18 because the program is directly funding the depots to assist in completing the installations. The Installation cost for FY18 increased by \$0.196M compared to PB18 request as the cost to install the Block 3i kits had been historically erroneously put in OSIP 005-17.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 2 / F-35 CV CONCURRENCY (OSIP 024-14)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	63.903	29.555	17.540	7.539	0.000	7.539	2.262	6.581	7.370	10.009	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	63.903	29.555	17.540	7.539	0.000	7.539	2.262	6.581	7.370	10.009	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	63.903	29.555	17.540	7.539	0.000	7.539	2.262	6.581	7.370	10.009	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: This effort (OSIP 024-14) funds retrofits due to concurrency changes to correct deficiencies discovered after DD-250 of the last aircraft in a given production lot. This includes modifications required to extend aircraft service life currently limited by low-life parts, and relieve capability limitations driven by concurrency of production with development. The concurrency funding line will procure the highest priority modifications from the Tri-Service Modification Prioritization List, as they become supportable from an engineering, production, and installation standpoint. The list is vetted by the Services and Partners every 6 months to ensure the list accurately reflects existing requirements as well as emerging issues. Per-kit costs will vary for each modification being implemented, and in some cases will also vary for aircraft from different LRIP lots to implement an individual modification. Total cost reflects procurement and installation costs in each fiscal year. Support costs include overall modification program planning, scheduling, and management; and support of Military and Service Depots and Depot Field Teams for incorporation of modifications. There are currently over 215 identified highest priority modifications throughout the CV fleet using funds from this OSIP.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series						Modification Number / Title: 2 / F-35 CV CONCURRENCY (OSIP 024-14)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 CV				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
<i>Modification Item 1 of 1:</i> F-35 CV CONCURRENCY (OSIP 024-14)													
A Kits													
Recurring													
1.1.1) Structures - Organic ⁽²⁾	- / 35.455	- / 15.410	- / 6.557	- / 1.346	- / -	- / 1.346	- / 1.141	- / 3.672	- / 4.593	- / 6.147	Continuing	Continuing	
1.1.2) Concurrency - Organic	- / 2.336	- / -	- / -	- / 1.919	- / -	- / 1.919	- / -	- / -	- / -	- / -	- / -	- / 4.255	
1.1.3) Mission Systems - Organic	- / 6.292	- / 3.295	- / 2.401	- / 0.971	- / -	- / 0.971	- / 0.240	- / 0.459	- / 0.421	- / 0.433	Continuing	Continuing	
1.1.4) Vehicle Systems - Organic	- / 10.469	- / 3.893	- / 2.354	- / 1.036	- / -	- / 1.036	- / 0.400	- / 0.487	- / 0.445	- / -	Continuing	Continuing	
1.1.5) Propulsion - Organic	- / 6.178	- / 2.563	- / 2.765	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 60.730	- / 25.161	- / 14.077	- / 5.272	- / -	- / 5.272	- / 1.781	- / 4.618	- / 5.459	- / 6.580	Continuing	Continuing	
B Kits													
Recurring													
2.1.1) Concurrency COD - Organic	- / -	- / -	- / -	- / 1.341	- / -	- / 1.341	- / 0.241	- / 1.523	- / 1.542	- / 3.429	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.341	- / -	- / 1.341	- / 0.241	- / 1.523	- / 1.542	- / 3.429	Continuing	Continuing	
<i>Subtotal: F-35 CV CONCURRENCY (OSIP 024-14)</i>	- / 60.730	- / 25.161	- / 14.077	- / 6.613	- / -	- / 6.613	- / 2.022	- / 6.141	- / 7.001	- / 10.009	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 60.730	- / 25.161	- / 14.077	- / 6.613	- / -	- / 6.613	- / 2.022	- / 6.141	- / 7.001	- / 10.009	Continuing	Continuing	
Support (All Modification Items)													
3.1) ILS	- / 1.856	- / 2.197	- / 1.753	- / 0.083	- / -	- / 0.083	- / 0.110	- / 0.146	- / 0.123	- / -	Continuing	Continuing	
3.2) Other Support	- / 1.317	- / 2.197	- / 1.710	- / 0.843	- / -	- / 0.843	- / 0.130	- / 0.294	- / 0.246	- / -	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 3.173	- / 4.394	- / 3.463	- / 0.926	- / -	- / 0.926	- / 0.240	- / 0.440	- / 0.369	- / -	Continuing	Continuing	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	63.903	29.555	17.540	7.539	0.000	7.539	2.262	6.581	7.370	10.009	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0593 / F-35 CV Series	Modification Number / Title: 2 / F-35 CV CONCURRENCY (OSIP 024-14)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-35 CV CONCURRENCY (OSIP 024-14)		
Footnotes: ⁽²⁾ Cost varies from year to year based on complexity of modifications and aircraft availability to perform modifications as required.		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 3 / F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	1.214	1.260	0.000	1.260	1.000	1.500	1.542	1.590	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	1.214	1.260	0.000	1.260	1.000	1.500	1.542	1.590	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	1.214	1.260	0.000	1.260	1.000	1.500	1.542	1.590	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: F-35 CV Correction of Deficiencies provides near and long term improvements to fielded F-35 jets, and focuses on correcting documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field retrofit performed by contractor artisans and organic support. In order to meet emerging deficiencies, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP) and implement those changes to sustain and improve F-35C system operations. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the F-35C platform. This modification program may be required to provide timely remedial action for any aircraft system, component or structure. DEVELOPMENT STATUS / MAJOR DEVELOPMENT MILESTONES: The establishment of this OSIP is concurrent with the phase out of SDD in FY18 and after the declaration of Initial Operational Capability (IOC) for the USN CV in August 2018. This OSIP will fund the incorporation of ECPs that are not associated with the concurrency program.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series						Modification Number / Title: 3 / F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 CV				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)</i>													
B Kits													
Recurring													
2.1.1) Correction of Deficiencies - Organic	- / -	- / -	- / 1.214	- / 1.260	- / -	- / 1.260	- / 1.000	- / 1.500	- / 1.542	- / 1.590	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 1.214</i>	<i>- / 1.260</i>	<i>- / -</i>	<i>- / 1.260</i>	<i>- / 1.000</i>	<i>- / 1.500</i>	<i>- / 1.542</i>	<i>- / 1.590</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.214</i>	<i>- / 1.260</i>	<i>- / -</i>	<i>- / 1.260</i>	<i>- / 1.000</i>	<i>- / 1.500</i>	<i>- / 1.542</i>	<i>- / 1.590</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 1.214</i>	<i>- / 1.260</i>	<i>- / -</i>	<i>- / 1.260</i>	<i>- / 1.000</i>	<i>- / 1.500</i>	<i>- / 1.542</i>	<i>- / 1.590</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	1.214	1.260	0.000	1.260	1.000	1.500	1.542	1.590	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0593 / F-35 CV Series	Modification Number / Title: 3 / F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-35 CV CORRECTION OF DEFICIENCIES (OSIP 001-21)		

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 4 / F-35 CV PROPULSION (OSIP 013-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.559	0.000	4.559	2.607	3.588	2.402	0.000	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.559	0.000	4.559	2.607	3.588	2.402	0.000	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	4.559	0.000	4.559	2.607	3.588	2.402	0.000	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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Description: This Propulsion Program is established for the correction of engine related readiness degraders impacting F-35 CV Reliability Maintainability and Availability (RM&A), production deficiencies, obsolescence, and reduction of life-cycle costs. These modifications (MODs) will be accomplished by field or depot retrofit and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the propulsion systems must be modified as critical RM&A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35 CV F-135 engine.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 4 / F-35 CV PROPULSION (OSIP 013-20)			
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: F-35 CV PROPULSION (OSIP 013-20)</i>													
A Kits													
Recurring													
1.1.1) Propulsion A Kits - Organic	- / -	- / -	- / -	- / 2.742	- / -	- / 2.742	- / 0.813	- / 0.994	- / 1.000	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 2.742	- / -	- / 2.742	- / 0.813	- / 0.994	- / 1.000	- / -	Continuing	Continuing	
B Kits													
Recurring													
2.1.1) Propulsion Kits - NonOrganic	- / -	- / -	- / -	17 / 1.817	- / -	17 / 1.817	16 / 1.084	34 / 1.914	- / -	- / -	- / -	67 / 4.815	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.817	- / -	- / 1.817	- / 1.084	- / 1.914	- / -	- / -	- / 0.000	- / 4.815	
<i>Subtotal: F-35 CV PROPULSION (OSIP 013-20)</i>	- / -	- / -	- / -	17 / 4.559	- / -	17 / 4.559	16 / 1.897	34 / 2.908	- / 1.000	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 4.559	- / -	- / 4.559	- / 1.897	- / 2.908	- / 1.000	- / -	Continuing	Continuing	
Support (All Modification Items)													
3.1) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	- / 0.200	- / 0.200	- / -	- / -	- / 0.600	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.200	- / 0.200	- / 0.200	- / -	- / 0.000	- / 0.600	
Installation													
<i>Modification Item 1 of 1: F-35 CV PROPULSION (OSIP 013-20)</i>	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.510	- / 0.480	- / 1.202	- / 0.000	- / 0.000	- / 2.192	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 0.510	- / 0.480	- / 1.202	- / -	- / 0.000	- / 2.192	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	4.559	0.000	4.559	2.607	3.588	2.402	0.000	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0593 / F-35 CV Series	Modification Number / Title: 4 / F-35 CV PROPULSION (OSIP 013-20)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:

Modification Item 1 of 1: F-35 CV PROPULSION (OSIP 013-20)

Installation Information

Method of Implementation: Contract:: Installation Name: Propulsion Installs

Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.000	- / -	- / -	- / -	0 / 0.000	17 / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.510	16 / 0.000	- / -	- / -	0 / 0.000	16 / 0.510
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.480	34 / 1.202	- / -	0 / 0.000	34 / 1.682
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	17 / 0.510	16 / 0.480	34 / 1.202	- / -	0 / 0.000	67 / 2.192

Installation Schedule

	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	16	-	-	-	34	-	-	-	-	-	-	-	67
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	-	-	-	16	-	-	-	34	-	-	-	-	-	-	67

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 5 / F-35 CV Block 4 Upgrade (OSIP 011-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	0.000	2.000	0.000	2.000	5.300	0.000	0.000	0.000	0.000	7.300
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	0.000	2.000	0.000	2.000	5.300	0.000	0.000	0.000	0.000	7.300
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	0.000	2.000	0.000	2.000	5.300	0.000	0.000	0.000	0.000	7.300
<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: This Block 4 Program is established to retrofit advanced capabilities on the F-35s to increase the capability and lethality of the weapon system for the warfighter. Funding is required to upgrade Low Rate Initial Production (LRIP) 11-14 aircraft. Block 4 capability is planned to deliver through a Continuous Capability Development and Delivery Concept which entails upgrades to both hardware and software on fielded aircraft. These modifications (MODs) will be accomplished incrementally by field or depot retrofit and implemented to coincide with resources and aircraft availability. This effort includes but not limited to Band 2/5, Digital Tuner Insertion Program (DTIP)), and weapons bay modifications. 7 Initial funding support planning and integration activities of these component's efforts include delta engineering, airworthiness, time compliance, technical data, and program support.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series						Modification Number / Title: 5 / F-35 CV Block 4 Upgrade (OSIP 011-20)			
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 (*) Indicates the modification is being installed organically and no installation funds are required.	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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													
1.1) Block 4 Kits - NonOrganic <i>Installation 1 of 1</i>	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.000	- / -	- / -	- / -	- / -	1 / 2.000	
1.1.1) Block 4 NRE - Organic ^(*)	- / -	- / -	- / -	- / 1.500	- / -	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / 1.500	
<i>Subtotal: Procurement</i>	- / 0.000	- / -	- / -	- / 1.500	- / -	- / 1.500	- / 2.000	- / -	- / -	- / -	- / 0.000	- / 3.500	
Support													
2.1) ILS	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / -	- / -	- / -	- / -	- / -	- / 0.500	
2.2) Other Support	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.300	- / -	- / -	- / -	- / -	- / 0.300	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 0.300	- / -	- / -	- / -	- / 0.000	- / 0.800	
Installation													
<i>Installation 1 of 1:</i> Block 4 Kits	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.000	- / -	- / -	- / -	- / 0.000	- / 3.000	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 3.000	- / -	- / -	- / -	- / 0.000	- / 3.000	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	2.000	0.000	2.000	5.300	0.000	0.000	0.000	0.000	7.300	

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Exhibit P-3a, Individual Modification: PB 2020 Navy											Date: March 2019																				
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0593 / F-35 CV Series										Modification Number / Title: 5 / F-35 CV Block 4 Upgrade (OSIP 011-20)											
ID Code (A=Service Ready, B=Not Service Ready) :															MDAP/MAIS Code:																
Installation 1 of 1: Block 4 Kits																															
Manufacturer Information																															
Manufacturer Name: TBD															Manufacturer Location: Various																
Administrative Leadtime <i>(in Months)</i> : 12															Production Leadtime <i>(in Months)</i> : 12																
Dates		FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024					
Contract Dates														Dec 2019																	
Delivery Dates														Dec 2021																	
Installation Information																															
Method of Implementation: Contract, Depot Activities:: Installation Name: Block 4 Kits																															
Installation Cost		Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total		FY 2021		FY 2022		FY 2023		FY 2024		To Complete		Total								
		<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total Cost (\$ M)</i>		<i>Qty (Each) / Total 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 2018		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2019		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2020		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2021		- / -	- / -		- / -		- / -		- / -		- / -		1 / 3.000		- / -		- / -		- / -		0 / 0.000		1 / 3.000								
FY 2022		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2023		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
FY 2024		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
To Complete		- / -	- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -		- / -						
Total		- / -	- / -		- / -		- / -		- / -		- / -		1 / 3.000		- / -		- / -		- / -		0 / 0.000		1 / 3.000								
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				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 2020 Navy									Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series					Modification Number / Title: 6 / F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)			
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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	1.000	1.654	1.687	1.720	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.654	1.687	1.720	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.654	1.687	1.720	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 Operational Safety Improvement Program is established for the correction of readiness degraders impacting F-35 CV cost per flight hour, Reliability Maintainability and Availability (RM&A), obsolescence, and reduction of life-cycle costs. These modifications will be accomplished by field retrofit and implemented to coincide with resources and aircraft availability. In order to meet the goal of increasing readiness, the airframe and integrated systems must be modified as critical RM&A issues are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals. The reliability and readiness initiatives included in the proposed OSIP are projected to have a significant positive impact to the F-35C Aircraft platform.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0593 / F-35 CV Series						Modification Number / Title: 6 / F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: F-35 CV				Modification Type: Capability Improvement				Related RDT&E PEs: 0604800N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)</i>													
B Kits													
Recurring													
2.1.1) Reliability and Maintainability - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.000	- / 1.654	- / 1.687	- / 1.720	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.000</i>	<i>- / 1.654</i>	<i>- / 1.687</i>	<i>- / 1.720</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.000</i>	<i>- / 1.654</i>	<i>- / 1.687</i>	<i>- / 1.720</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>- / 1.000</i>	<i>- / 1.654</i>	<i>- / 1.687</i>	<i>- / 1.720</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<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>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	0.000	0.000	0.000	0.000	1.000	1.654	1.687	1.720	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0593 / F-35 CV Series	Modification Number / Title: 6 / F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: F-35 CV RELIABILITY AND MAINTAINABILITY (OSIP 002-21)		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft							P-1 Line Item Number / Title: 0595 / QRC					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	22.906	39.916	103.909	165.016	18.458	183.474	145.145	19.579	19.921	20.316	-	555.166
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	22.906	39.916	103.909	165.016	18.458	183.474	145.145	19.579	19.921	20.316	-	555.166
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	22.906	39.916	103.909	165.016	18.458	183.474	145.145	19.579	19.921	20.316	-	555.166
<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: Details of this P-1 item are classified.												
Justification: Justification of this request is provided separately.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019				
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0596 / MQ-4 Series						
ID Code (A=Service Ready, B=Not Service Ready): B			Program Elements for Code B Items: 0305220N, 0305421N					Other Related Program Elements: N/A				
Line Item MDAP/MAIS Code: 373												
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	-	208.533
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	-	208.533
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	-	208.533
(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:												
This line item funds modifications to the baseline MQ-4C Triton Unmanned Air System (UAS) to deliver the Multi-Intelligence (Multi-INT) configuration. MQ-4C Triton aircraft and ground stations in the Multi-INT configuration are integral to the Navy's Intelligence, Surveillance, and Reconnaissance (ISR) transition plan. Modifications will include sensor, electronics and communication subsystems that provide Triton's Integrated Functional Capability 4 (IFC 4), Multi-Intelligence configuration.												
The MQ-4C Triton Unmanned Air System (UAS) is integral to recapitalizing the Navy's Maritime Patrol and Reconnaissance Force. The MQ-4C Triton UAS provides a persistent maritime and littoral ISR data collection and dissemination capability to the fleet, serving as a force multiplier for the Joint Force and Fleet Commander, enhancing situational awareness of the battle space and shortening the sensor-to-shooter kill chain. Teamed with its manned-capability counterpart, the P-8A, Triton will be a key component of the Navy's family of systems to achieve maritime domain awareness. The MQ-4C air vehicle, mission control system, specialized sensors, and communications suite will play a significant role in achieving the Navy's strategic vision for the 21st century. The Triton system as a persistence ISR enabler provides the supported combatant commander and fleet commander with unparalleled situational awareness of the maritime battle space to develop and sustain the Common Operational Tactical Picture (COTP). The system will also serve as a Fleet response plan enabler with a persistent, global force offering to provide critical trip wire information for intelligence preparation of the environment. Triton will connect to both the Global Information Grid and the Distributed Common Ground System-Navy information backbone to provide the Warfighter with unprecedented levels of battlespace awareness to synchronize actions necessary to maintain maritime Full Spectrum Superiority. Triton's on-station time and range enables unmatched awareness of the maritime battlespace by sustaining the COTP for Surface Warfare and the Overseas Contingency Operation.												
MQ-4C Triton includes an endurance-class UAS that will operate from land-based sites around the world. Unmanned aircraft at each operating location will provide persistent maritime ISR by being airborne 24 hours a day, 7 days a week out to ranges of 2,000 nautical miles. Worldwide access will be achieved by providing coverage to nearly all the world's high-density sea-lanes, littorals and areas of national interest from its operating locations. Triton will leverage the Maritime Patrol and Reconnaissance Forces community to enhance manpower, training and maintenance efficiencies.												
MQ-4C Triton UAS sensors will provide detection, classification, tracking and identification of maritime targets. Sensors to fulfill mission requirements include maritime radar, electro-optical/infrared and Electronic Support Measures systems. Additionally, Triton will have a communications relay capability linking dispersed forces in the theater of operation and serving as a node in the Navy's networked strategy. The MQ-4C Triton UAS will support the Fleet Commander's common operational tactical picture COTP of the battlespace, day and night. The UAS will cue other Navy assets for further situational investigation and/or attack, and will also provide battle damage assessment of the area of interest. Tactical-level data analysis will occur in real-time at shore-based Mission Control Systems via satellite communications. Further intelligence exploitation can be conducted at shore-based sites or aboard Carrier Vessel Nuclear/Landing Helicopter Dock ships.												

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft		P-1 Line Item Number / Title: 0596 / MQ-4 Series
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0305220N, 0305421N	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: 373		
The aircraft inventory objective for the MQ-4C Triton in FY 2020 is projected to be 2 System Development and Demonstration, 1 System Demonstration Test Article, and 6 LRIP aircraft. DT&E: 4Q FY12 - 4Q FY20 OT&E: 1Q FY21 - 3Q FY21 FRP: 4Q FY21		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy								Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft						P-1 Line Item Number / Title: 0596 / MQ-4 Series				
ID Code (A=Service Ready, B=Not Service Ready): B				Program Elements for Code B Items: 0305220N, 0305421N			Other Related Program Elements: N/A			
Line Item MDAP/MAIS Code: 373										
Exhibits Schedule					Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / MQ-4C Triton Upgrades (OSIP 009-18) (Added capability)				- / 0.000	- / 13.296	- / 48.278	- / 27.994	- / 0.000	- / 27.994
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 13.296	- / 48.278	- / 27.994	- / 0.000	- / 27.994
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / MQ-4C Triton Upgrades (OSIP 009-18) (Added capability)				- / 12.992	- / 36.992	- / 50.991	- / 17.990	- / 0.000	- / 208.533
P-40	Total Gross/Weapon System Cost				- / 12.992	- / 36.992	- / 50.991	- / 17.990	- / -	- / 208.533
*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 2020 request resources hardware and installation costs to upgrade aircraft (qty 1) and ground stations (qty 1) to the Integrated Functional Capability 4.0 (IFC 4.0) configuration. The FY 2020 request reflects completion of IFC 4.0 aircraft and Main and Forward Operating Base upgrades that were originally planned in prior years.

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1					P-1 Line Item Number / Title: 0596 / MQ-4 Series					Modification Number / Title: 1 / MQ-4C Triton Upgrades (OSIP 009-18)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	0.000	208.533
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	0.000	208.533
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	0.000	208.533
<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 purpose of this OSIP is to upgrade baseline aircraft and ground stations (Main Operating Base (MOB) and Forward Operating Base (FOB)) to IFC 4 and future configurations. The ground stations also include the stand-alone MOB used for training. The technical components of the IFC 4 retrofits for the unmanned aircraft include, but are not limited to: addition of Signals Intelligence (SIGINT) antennas and systems, new High Gain Common Data Link (CDL) antenna and associated avionics, addition of a Keyed Broad Area Maritime Surveillance Airborne Recorder (K-BAR), new Airborne Mission Processor, new airborne network hardware, addition of high assurance internet protocol encryptors (HAIZE), new Voice Communications, and new Cross Domain Solution (CDS), and air vehicle aircraft modifications to mitigate Electromagnetic Interference (EMI). The technical components of the IFC 4 retrofits for the MOB/FOB include, but are not limited to: addition of a K-BAR docking station, addition of Mission Execution equipment (replaces existing payload hardware), new communication and network equipment, addition of CDS, and addition of a Sensitive Compartmented Information Facility (SCIF) Data Facility. Development Status/Major Development Milestones: Multi-INT Early Operational Capability FY 2021 and Triton Initial Operational Capability FY 2021.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0596 / MQ-4 Series						Modification Number / Title: 1 / MQ-4C Triton Upgrades (OSIP 009-18)			
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: MQ-4C Triton				Modification Type: Added capability				Related RDT&E PEs: 0305421N					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: MQ-4C Triton Upgrades (OSIP 009-18)													
A Kits													
Recurring													
1.1.1) IFC 4.0 Aircraft Upgrade A Kit - NonOrganic	- / -	1 / 3.846	1 / 3.835	1 / 4.035	- / -	1 / 4.035	- / -	2 / 8.696	2 / 8.352	- / -	- / -	7 / 28.764	
Subtotal: Recurring	- / 0.000	- / 3.846	- / 3.835	- / 4.035	- / -	- / 4.035	- / -	- / 8.696	- / 8.352	- / -	- / 0.000	- / 28.764	
B Kits													
Recurring													
2.1.1) IFC 4.0 Aircraft Upgrade B kit - Organic	- / -	1 / 9.315	1 / 8.368	1 / 8.860	- / -	1 / 8.860	- / -	2 / 18.395	2 / 18.246	- / -	- / -	7 / 63.184	
2.1.2) IFC 4.0 Main and Forward Operating Base upgrade - NonOrganic ⁽¹⁾	- / -	- / -	1 / 8.134	1 / 5.374	- / -	1 / 5.374	1 / 6.385	1 / 8.950	- / -	- / -	- / -	4 / 28.843	
Subtotal: Recurring	- / 0.000	- / 9.315	- / 16.502	- / 14.234	- / -	- / 14.234	- / 6.385	- / 27.345	- / 18.246	- / -	- / 0.000	- / 92.027	
Non-Recurring													
2.2.1) N/R for IFC 4.0 Upgrade - Organic ⁽²⁾	- / -	- / -	- / 0.988	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.988	
Subtotal: Non-Recurring	- / 0.000	- / -	- / 0.988	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	- / 0.988	
Subtotal: MQ-4C Triton Upgrades (OSIP 009-18)	- / -	2 / 13.161	3 / 21.325	3 / 18.269	- / -	3 / 18.269	1 / 6.385	5 / 36.041	4 / 26.598	- / -	- / -	18 / 121.779	
Subtotal: Procurement, All Modification Items	- / 0.000	- / 13.161	- / 21.325	- / 18.269	- / -	- / 18.269	- / 6.385	- / 36.041	- / 26.598	- / -	- / 0.000	- / 121.779	
Support (All Modification Items)													
3.1) Training Equipment ⁽³⁾	- / -	- / -	- / 4.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.593	
3.2) Other Support ⁽⁴⁾	- / -	- / 0.135	- / 0.900	- / 0.923	- / -	- / 0.923	- / 0.549	- / 0.951	- / 0.970	- / 0.105	- / -	- / 4.533	
Subtotal: Support	- / 0.000	- / 0.135	- / 5.493	- / 0.923	- / -	- / 0.923	- / 0.549	- / 0.951	- / 0.970	- / 0.105	- / 0.000	- / 9.126	
Installation													
Modification Item 1 of 1: MQ-4C Triton Upgrades (OSIP 009-18)	- / 0.000	- / 0.000	- / 21.460	- / 8.802	- / 0.000	- / 8.802	- / 6.058	- / 0.000	- / 23.423	- / 17.885	- / 0.000	- / 77.628	
Subtotal: Installation	- / 0.000	- / -	- / 21.460	- / 8.802	- / -	- / 8.802	- / 6.058	- / -	- / 23.423	- / 17.885	- / 0.000	- / 77.628	
Total													
Total Cost (Procurement + Support + Installation)	0.000	13.296	48.278	27.994	0.000	27.994	12.992	36.992	50.991	17.990	0.000	208.533	

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Exhibit P-3a, Individual Modification: PB 2020 Navy							Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0596 / MQ-4 Series				Modification Number / Title: 1 / MQ-4C Triton Upgrades (OSIP 009-18)				
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Modification Item 1 of 1: MQ-4C Triton Upgrades (OSIP 009-18)												
Manufacturer Information												
Manufacturer Name: Multiple Manufacturers - Operating Base ⁽⁵⁾							Manufacturer Location: Various					
Administrative Leadtime <i>(in Months)</i> : 0							Production Leadtime <i>(in Months)</i> : 12					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates		Dec 2018	Dec 2019	Dec 2020	Mar 2022							
Delivery Dates		Sep 2019	Dec 2020	Sep 2021	Mar 2023							
Manufacturer Name: Multiple Manufacturers-Aircraft Upgrade							Manufacturer Location: Various					
Administrative Leadtime <i>(in Months)</i> : 0							Production Leadtime <i>(in Months)</i> : 9					
Dates	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024					
Contract Dates	Jun 2018	Dec 2018	Dec 2019		Dec 2021	Dec 2022						
Delivery Dates	Jul 2019	Sep 2019	Sep 2020		Mar 2023	Mar 2024						
Installation Information												
Method of Implementation: Contractor:: Installation Name: IFC 4.0 Aircraft Upgrade A Kit												
Installation Cost	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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 2018	- / -	- / -	1 / 8.134	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	1 / 8.134
FY 2019	- / -	- / -	1 / 8.540	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	1 / 8.540
FY 2020	- / -	- / -	- / -	1 / 8.802	0 / 0.000	1 / 8.802	- / -	- / -	- / -	- / -	0 / 0.000	1 / 8.802
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2022	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 18.121	- / -	0 / 0.000	2 / 18.121
FY 2023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 17.885	0 / 0.000	2 / 17.885
FY 2024	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	2 / 16.674	1 / 8.802	0 / 0.000	1 / 8.802	- / -	- / -	2 / 18.121	2 / 17.885	0 / 0.000	7 / 61.482

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Exhibit P-3a, Individual Modification: PB 2020 Navy																							Date: March 2019								
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1										P-1 Line Item Number / Title: 0596 / MQ-4 Series										Modification Number / Title: 1 / MQ-4C Triton Upgrades (OSIP 009-18)											
ID Code (A=Service Ready, B=Not Service Ready) :																	MDAP/MAIS Code:														
Modification Item 1 of 1: MQ-4C Triton Upgrades (OSIP 009-18)																															
Installation Information																															
Method of Implementation: Contractor:: Installation Name: IFC 4.0 Aircraft Upgrade A Kit																															
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	1	-	1	-	-	1	-	1	-	-	7
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	1	3	7
Method of Implementation: Contractor:: Installation Name: IFC 4.0 Main and Forward Operating Base upgrade																															
Installation Cost		Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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 2018		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2019		- / -	- / -	1 / 4.786	- / -	- / -	- / -	- / -	- / -	- / -	- / -	0 / 0.000	1 / 4.786																		
FY 2020		- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.029	- / -	- / -	- / -	0 / 0.000	1 / 3.029																		
FY 2021		- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.029	- / -	- / -	- / -	0 / 0.000	1 / 3.029																		
FY 2022		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 5.302	- / -	0 / 0.000	1 / 5.302																		
FY 2023		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
FY 2024		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
To Complete		- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -																		
Total		- / -	- / -	1 / 4.786	- / -	- / -	- / -	2 / 6.058	- / -	1 / 5.302	- / -	0 / 0.000	4 / 16.146																		
Installation Schedule																															
	PYS	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				TC	Tot
In	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	4	
Out	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	1	-	-	-	4	
Method of Implementation (Organic): IFC 4.0 Aircraft Upgrade B kit														Installation Quantity: 7																	
Footnotes:																															

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0596 / MQ-4 Series	Modification Number / Title: 1 / MQ-4C Triton Upgrades (OSIP 009-18)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
(1) IFC 4.0 Main and Forward Operating Base installation upgrade can be completed in parallel with IFC 4.0 aircraft installation upgrade. (2) FY 2019 nonrecurring required to execute IFC 4.0 upgrade. (3) Training equipment upgrade aligns with IFC 4.0 MOB/FOB upgrade. (4) Other Support funds government support for aircraft modification, installation, calibration and testing required for acceptance. (5) MOB/FOB quantity of 4 represents 2 MOB's and 2 FOB's. Unit costs will vary because the MOB contains additional mission systems and operator workstations over the FOB.		

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft	P-1 Line Item Number / Title: 0598 / RQ-21 Series

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	-	201.210
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	-	201.210
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	-	201.210
<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 requirement for the RQ-21A Unmanned Aircraft System is defined in a Capability Development Document, dated 18 November 2008 and further defined in the Capability Production Document, dated 15 February 2013. The RQ-21A program entered the Engineering and Manufacturing Development (EMD) phase of the acquisition process as an Acquisition Category III program on 26 July 2010. On 19 August 2014 RQ-21A was designated an Acquisition Category II program.

The RQ-21A system provides the Marine Expeditionary Force and subordinate commands (divisions and regiments) and USN Naval Special Warfare (NSW) a dedicated Intelligence, Surveillance, and Reconnaissance system capable of delivering intelligence products directly to the tactical commander in real time. The RQ-21A system is capable of providing actionable intelligence and communications relay for 12-hour continuous operations per day with a short surge capability of 24-hours continuous operations for 10 days. The system has an operating radius of 50 nautical miles, further extendable through hub and spoke operations. The Air Vehicle is capable of airspeeds up to 80 nautical miles per hour with a service ceiling of 15,000 feet. The Marine Corps will have a quantity of 21 RQ-21 systems procured by FY 2018. The Navy has procured a quantity of 10 RQ-21 systems. There are no future plans to buy more RQ-21 systems at this time, but attrition air vehicles will be procured.

An RQ-21A system consists of five air vehicles, two ground control stations, modular multi-mission plug and play payloads, one launcher, one recovery system, and support equipment. Standard payloads include a turret mounted Electro Optic/Infrared (EO/IR) camera and a communications relay package with automated identification ship capability, carried in the payload bay.

The RQ-21A system will continue to evolve and upgrade capabilities to satisfy capability shortfalls, new requirements, and reliability, maintainability, and safety issues. Upgraded capabilities may include Navy Command and Control integration, Weapons Integration, Heavy Fuel Engine, Laser Designator, Frequency Agile Communications Relay, Digital Common Data Link, new launch and recovery methods, parts durability and manufacturability, and cyclic refresh of the Electro-Optical/Infrared (EO/IR) camera.

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Exhibit P-40, Budget Line Item Justification: PB 2020 Navy							Date: March 2019			
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 05: Modification of Aircraft / BSA 1: Modification of Aircraft					P-1 Line Item Number / Title: 0598 / RQ-21 Series					
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 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 / RQ-21 Correction Of Deficiencies (004-20) (Correction of Deficiencies)				- / 0.000	- / 0.000	- / 24.119	- / 66.282	- / 0.000	- / 66.282
P-40	Total Gross/Weapon System Cost				- / 0.000	- / 0.000	- / 24.119	- / 66.282	- / 0.000	- / 66.282
Exhibits Schedule					FY 2021	FY 2022	FY 2023	FY 2024	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 / RQ-21 Correction Of Deficiencies (004-20) (Correction of Deficiencies)				- / 30.582	- / 25.242	- / 26.683	- / 28.302	- / 0.000	- / 201.210
P-40	Total Gross/Weapon System Cost				- / 30.582	- / 25.242	- / 26.683	- / 28.302	- / -	- / 201.210
*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 2020 funds are required to retrofit three of the USMC RQ-21A systems and five of the USN Naval Special Warfare (NSW) RQ-21A systems with EO/IR turret upgrade that includes the laser designator capability and optics improvements required for effective identification (\$33.445M), perform critical extruded mast upgrade retrofits for four USMC RQ-21A and two USN NSW recovery systems (\$3.060M), retrofit twenty-five USN NSW RQ-21 air vehicles (AV) with Unmanned Radio frequency Receiver (SURFR) Payload Suite enabling special collection in operational theaters (\$18.750M), retrofit eighteen USN NSW RQ-21 AV's with Visual detection and Ranging (ViDAR) payload to provide wide-area imaging capability (\$3.600M), retrofit fifty USN NSW AV's with Ultra High Frequency (UHF)/Very High Frequency (VHF) transponder communications to provide Identification of Friend or Foe (IFF) capability (\$4.100M), and support costs related to both USMC and USN RQ-21 system retrofits (\$3.327M).										

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Exhibit P-3a, Individual Modification: PB 2020 Navy										Date: March 2019		
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0598 / RQ-21 Series						Modification Number / Title: 1 / RQ-21 Correction Of Deficiencies (004-20)		
ID Code (A=Service Ready, B=Not Service Ready) :							MDAP/MAIS Code:					
Resource Summary	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	0.000	201.210
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	0.000	201.210
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	0.000	201.210
<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: RQ-21 Blackjack Correction of Deficiencies provides near and long term improvements to fielded RQ-21 systems, and focuses on correcting documented deficiencies related to safety, maintainability, and aircraft systems. These modifications and selected component changes are being accomplished by field retrofit performed by contractor artisans and organic support. In order to meet emerging deficiencies, the airframe and integrated systems must be modified as critical corrections/changes are identified. Funds will be used to manage, prepare, process and incorporate Engineering Change Proposals (ECP) and implement those changes in order to sustain and improve RQ-21 system operations. ECPs are implemented to coincide with resources and aircraft availability. These changes provide more robust performance in navigation, weapons, avionics, survivability, maneuverability, maintainability, and mission deployment of the RQ-21 platform. This modification program may be required to provide timely remedial action for any aircraft system, component or structure. Funding in FY 2019-2021 will modify the current Electro Optical/Infrared camera turret to include a Laser Designator for USMC systems. The retrofit will modify 100% of the USN NSW air vehicles and approximately 60% of all USMC air vehicles with the rest being upgraded through attrition. FY 2019-2021 funding will modify the current welded mast sections of the recovery systems with extruded aluminum masts sections which are more durable for the USMC and USN NSW systems. This will strengthen the recovery mast and addresses critical safety concerns. Each RQ-21 system contains one recovery system. FY 2022-2024 funding supports the modification of the air vehicles to incorporate a Vertical Takeoff and Landing (VTOL) kit. This retrofit will allow for more expeditionary employment of the RQ-21A system, reduced capture damage and mishap rate, and will reduce the footprint of systems where the capability is employed. Funds from FY 2022-2024 will retrofit 100% of the USN NSW and approximately 60% of the USMC systems. Funds in FY 2020-2023 are required to retrofit USN NSW RQ-21 AV's with Unmanned Radio frequency Receiver (SURFR) Payload Suite enabling special collection in operational theaters. FY 2020-2022 funding will retrofit all USN NSW RQ-21 AV's with Visual detection and Ranging (ViDAR) payload to provide wide-area imaging capability to NSW. Funding in FY 2020 will retrofit all USN NSW RQ-21 AV's with UHF/VHF Transponders that provide IFF capability to distinguish friendly UAS and provide safety of flight, especially against friendly counter UAS efforts in theater. UHF/VHF Communications relay packages will enable two-way voice communication and the ability for a UAS operator to speak directly to Air Traffic Controllers or other forces in theater. Funds in FY 2022-2024 are required to perform future payload upgrade retrofits to provide new capability to USN NSW users.												

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Exhibit P-3a, Individual Modification: PB 2020 Navy								Date: March 2019					
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1				P-1 Line Item Number / Title: 0598 / RQ-21 Series				Modification Number / Title: 1 / RQ-21 Correction Of Deficiencies (004-20)					
ID Code (A=Service Ready, B=Not Service Ready) :								MDAP/MAIS Code:					
Models of Systems Affected: RQ-21				Modification Type: Correction of Deficiencies				Related RDT&E PEs: 0305239M					
Financial Plan	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	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: RQ-21 Correction Of Deficiencies (004-20)													
B Kits													
Recurring													
1.1.1) EO/IR Turret Upgrade - Organic - Organic ⁽¹⁾	- / -	- / -	6 / 16.890	8 / 33.445	- / -	8 / 33.445	5 / 14.075	- / -	- / -	- / -	- / -	19 / 64.410	
1.1.2) Mast Upgrade - Organic ⁽²⁾	- / -	- / -	8 / 4.080	6 / 3.060	- / -	6 / 3.060	5 / 2.600	- / -	- / -	- / -	- / -	19 / 9.740	
1.1.3) VTOL Upgrade - Organic - Organic ⁽³⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 7.429	8 / 8.659	9 / 9.936	- / -	24 / 26.024	
1.1.4) SURFR Payload Suite - USN - Organic ⁽⁴⁾	- / -	- / -	- / -	25 / 18.750	- / -	25 / 18.750	10 / 7.650	10 / 7.800	5 / 3.975	- / -	- / -	50 / 38.175	
1.1.5) ViDAR payload - USN - Organic ⁽⁵⁾	- / -	- / -	- / -	18 / 3.600	- / -	18 / 3.600	18 / 3.672	14 / 2.912	- / -	- / -	- / -	50 / 10.184	
1.1.6) UHF/VHF Transponder Communications - USN - Organic ⁽⁶⁾	- / -	- / -	- / -	50 / 4.100	- / -	50 / 4.100	- / -	- / -	- / -	- / -	- / -	50 / 4.100	
1.1.7) Future Payload Upgrades USN - Organic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 4.467	10 / 11.360	14 / 15.623	- / -	28 / 31.450	
Subtotal: Recurring	- / 0.000	- / -	- / 20.970	- / 62.955	- / -	- / 62.955	- / 27.997	- / 22.608	- / 23.994	- / 25.559	- / 0.000	- / 184.083	
Subtotal: RQ-21 Correction Of Deficiencies (004-20)	- / -	- / -	14 / 20.970	107 / 62.955	- / -	107 / 62.955	38 / 27.997	35 / 22.608	23 / 23.994	23 / 25.559	- / -	240 / 184.083	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / 20.970	- / 62.955	- / -	- / 62.955	- / 27.997	- / 22.608	- / 23.994	- / 25.559	- / 0.000	- / 184.083	
Support (All Modification Items)													
2.1) ILS	- / -	- / -	- / 1.326	- / 1.221	- / -	- / 1.221	- / 1.002	- / 1.020	- / 1.042	- / 1.063	- / -	- / 6.674	
2.2) Data	- / -	- / -	- / 0.771	- / 0.251	- / -	- / 0.251	- / 0.239	- / 0.244	- / 0.249	- / 0.254	- / -	- / 2.008	
2.3) Other Support ⁽⁷⁾	- / -	- / -	- / 1.052	- / 1.855	- / -	- / 1.855	- / 1.344	- / 1.370	- / 1.398	- / 1.426	- / -	- / 8.445	
Subtotal: Support	- / 0.000	- / -	- / 3.149	- / 3.327	- / -	- / 3.327	- / 2.585	- / 2.634	- / 2.689	- / 2.743	- / 0.000	- / 17.127	
Installation													
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.000	24.119	66.282	0.000	66.282	30.582	25.242	26.683	28.302	0.000	201.210	

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Exhibit P-3a, Individual Modification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 05 / 1	P-1 Line Item Number / Title: 0598 / RQ-21 Series	Modification Number / Title: 1 / RQ-21 Correction Of Deficiencies (004-20)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
Modification Item 1 of 1: RQ-21 Correction Of Deficiencies (004-20)		
Footnotes: (1) Each Turret Upgrade kit contains 5 turrets to retrofit all 5 air vehicles in a RQ-21A system. FY 2020 base quantities and funding are for three USMC RQ-21 kits and five USN kits in support of Naval Special Warfare (NSW). Unit cost increase from FY 2019 to FY 2020 due to upgraded Alticam 14 EO/IR turret which include laser designator capability and optics improvements. (2) Mast upgrades quantities reflect upgrades per RQ-21A system. FY2020 base quantities and funding are for four USMC RQ-21 upgrades and two USN NSW RQ-21 upgrades, replacing welded masts which have a 2 1/2 year service life. (3) VTOL kit includes equipment to retrofit all 5 air vehicles in a RQ-21A system for both USMC and USN NSW systems. (4) Unmanned Radio Frequency Receiver (SURFR) Payload Suite for the RQ-21A enables special collection in Theaters. FY 2020 Quantity reflects RQ-21 system component - air vehicles. (5) Visual Detection and Ranging (ViDAR) payload for the RQ-21A that provides a wide-area imaging capability for the air vehicle. FY 2020 Quantity reflects RQ-21 system component - air vehicles. (6) FY 2020 Quantity reflects RQ-21 system component - air vehicles. (7) Includes engineering and logistics support required to properly prepare and execute system retrofits in support of both the USMC and USN.		

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