UNCLASSIFIED

Department of Defense
Fiscal Year (FY) 2020 Budget Estimates

March 2019

Navy

Justification Book Volume 3 of 3

Aircraft Procurement, Navy

Budget Activities 06−07

UNCLASSIFIED

The estimated cost of this report for the Department of the Navy (DON) is $16,405.

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.

Table of Volumes

Budget Activities 01-04.....**Volume 1**

Budget Activity 05.....**Volume 2**

Budget Activities 06-07.....**Volume 3**

THIS PAGE INTENTIONALLY LEFT BLANK

Volume 3 Table of Contents

Introduction and Explanation of Contents.....Volume 3 - v

Comptroller Exhibit P-1.....Volume 3 - vii

Master Line Item Table of Contents (by Appropriation then Line Number).....Volume 3 - xxxvii

Master Line Item Table of Contents (Alphabetically by Line Item Title).....Volume 3 - xliii

Exhibit P-40s.....Volume 3 - 1

THIS PAGE INTENTIONALLY LEFT BLANK

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.

THIS PAGE INTENTIONALLY LEFT BLANK

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

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

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

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

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

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

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
	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)										

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	Sec
	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)							

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	Quantity	FY 2020 Total (Base + OCO) Cost	Sec
	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)	

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
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)										

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	Sec
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)							

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	Quantity	FY 2020 Total (Base + OCO) Cost	Sec
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)	

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
11	H-1 Upgrades (UH-1Y/AH-1Z)	A	29	(938,961)	25	(840,437)			25	(840,437)	U
	Less: Advance Procurement (PY)			(-49,194)		(-42,082)				(-42,082)	U
				889,767		798,355				798,355	
12	H-1 Upgrades (UH-1Y/AH-1Z)										
	Advance Procurement (CY)			42,082							U
	C (FY 2018 for FY 2019) (M)			(42,082)							
13	MH-60R (MYP)	A	8	400,000							U
14	P-8A Poseidon	A	10	(1,840,515)	10	(1,908,367)			10	(1,908,367)	U
	Less: Advance Procurement (PY)			(-130,873)		(-146,614)				(-146,614)	U
				1,709,642		1,761,753				1,761,753	
15	P-8A Poseidon										
	Advance Procurement (CY)			140,600		180,000				180,000	U
	C (FY 2018 for FY 2019) (M)			(140,600)							
	C (FY 2019 for FY 2020) (M)					(180,000)				(180,000)	
16	E-2D Adv Hawkeye	A	5	(987,313)	6	(1,174,371)			6	(1,174,371)	U
	Less: Advance Procurement (PY)			(-271,003)		(-102,026)				(-102,026)	U
				716,310		1,072,345				1,072,345	
17	E-2D Adv Hawkeye										
	Advance Procurement (CY)			102,026		240,734				240,734	U
	C (FY 2018 for FY 2019) (M)			(102,026)							
	C (FY 2019 for FY 2020) (M)					(126,128)				(126,128)	
	C (FY 2019 for FY 2021) (M)					(38,202)				(38,202)	
	C (FY 2019 for FY 2022) (M)					(38,202)				(38,202)	
	C (FY 2019 for FY 2023) (M)					(38,202)				(38,202)	
	C (FY 2020 for FY 2021) (M)										
	C (FY 2020 for FY 2022) (M)										
	C (FY 2020 for FY 2023) (M)										
Total Combat Aircraft				13,090,227		13,006,745		152,000		13,158,745	

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	Sec
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							

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	Sec
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	

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
	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

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	Sec
	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

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	Quantity	FY 2020 Total (Base + OCO) Cost	Sec
	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

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
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	STUASL0 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

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	Sec
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	STUASL0 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

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	Sec
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	STUASL0 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

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
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

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	Sec
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

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	Sec
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

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
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

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	Sec
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

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	Sec
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

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	FY 2018 (Base + OCO) Cost	FY 2019 Base Enacted Quantity	FY 2019 Base Enacted Cost	FY 2019 OCO Enacted Quantity	FY 2019 OCO Enacted Cost	FY 2019 Total Enacted Quantity	FY 2019 Total Enacted Cost	Sec
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	

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	Sec
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	

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	Sec
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	

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

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
1	01	01	0145	FA-18E/F	Volume 1 - 1
2	01	01	0145	FA-18E/F, Advance Procurement	Volume 1 - 11
3	01	01	0147	Joint Strike Fighter CV	Volume 1 - 15
4	01	01	0147	Joint Strike Fighter CV, Advance Procurement	Volume 1 - 25
5	01	01	0152	JSF STOVL	Volume 1 - 29
6	01	01	0152	JSF STOVL, Advance Procurement	Volume 1 - 39
7	01	01	0158	CH-53K (Heavy Lift)	Volume 1 - 43
8	01	01	0158	CH-53K (Heavy Lift), Advance Procurement	Volume 1 - 55
9	01	01	0164	V-22 (Medium Lift)	Volume 1 - 59
10	01	01	0164	V-22 (Medium Lift), Advance Procurement	Volume 1 - 77
11	01	01	0178	UH-1Y/AH-1Z	Volume 1 - 83
12	01	01	0178	UH-1Y/AH-1Z, Advance Procurement	Volume 1 - 97
13	01	01	0182	MH-60R	Volume 1 - 103
14	01	01	0193	P-8A Poseidon	Volume 1 - 109
15	01	01	0193	P-8A Poseidon, Advance Procurement	Volume 1 - 121
16	01	01	0195	E-2D AHE	Volume 1 - 125

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
17	01	01	0195	E-2D AHE, Advance Procurement	Volume 1 - 137

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
18	02	01	0246	C-40A	Volume 1 - 141

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
19	03	01	0344	Advanced Helicopter Training System	Volume 1 - 151

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
20	04	01	0416	KC-130J	Volume 1 - 159
21	04	01	0416	KC-130J, Advance Procurement	Volume 1 - 169
22	04	01	0417	F-5	Volume 1 - 173
23	04	01	0442	MQ-4 TRITON	Volume 1 - 179
24	04	01	0442	MQ-4 TRITON, Advance Procurement	Volume 1 - 189
25	04	01	0443	MQ-8 UAV	Volume 1 - 193
26	04	01	0444	STUASLO	Volume 1 - 203
27	04	01	0451	MQ-9A Reaper	Volume 1 - 215
28	04	01	0455	VH-92A Executive Helo	Volume 1 - 223

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
29	05	01	0513	AEA Systems	Volume 2 - 1
30	05	01	0514	AV-8 Series	Volume 2 - 9

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
31	05	01	0522	Adversary	Volume 2 - 33
32	05	01	0525	F-18 Series	Volume 2 - 47
33	05	01	0528	H-53 Series	Volume 2 - 193
34	05	01	0530	MH-60 Series	Volume 2 - 245
35	05	01	0532	H-1 Series	Volume 2 - 275
36	05	01	0537	EP-3 Series	Volume 2 - 307
37	05	01	0538	P-3 Series	Volume 2 - 323
38	05	01	0544	E-2 Series	Volume 2 - 331
39	05	01	0549	Trainer Acft Series	Volume 2 - 405
40	05	01	0556	C-2A	Volume 2 - 421
41	05	01	0560	C-130 Series	Volume 2 - 435
42	05	01	0561	Flt Elect Wrfr Supt Grp (FEWSG)	Volume 2 - 465
43	05	01	0562	Cargo/Transport Acft Series	Volume 2 - 471
44	05	01	0564	E-6 Series	Volume 2 - 495
45	05	01	0566	Executive Helicopters Series	Volume 2 - 553
46	05	01	0567	Special Project Acft	Volume 2 - 583
47	05	01	0569	T-45 Series	Volume 2 - 591
48	05	01	0570	Power Plant Changes	Volume 2 - 635

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
49	05	01	0571	JT Primary Acft Trnr Sys (JPATS)	Volume 2 - 641
50	05	01	0575	Aviation Life Support Mods	Volume 2 - 663
51	05	01	0576	Common ECM Equipment	Volume 2 - 677
52	05	01	0577	Common Avionics Changes	Volume 2 - 703
53	05	01	0581	Common Defensive Weapon System	Volume 2 - 737
54	05	01	0582	ID Sys	Volume 2 - 745
55	05	01	0586	P-8 Series	Volume 2 - 751
56	05	01	0587	MAGTF EW for Aviation	Volume 2 - 785
57	05	01	0588	MQ-8 Series	Volume 2 - 793
58	05	01	0590	V-22 (Tilt/Rotor Acft) Osprey	Volume 2 - 819
59	05	01	0591	Next Generation Jammer (NGJ)	Volume 2 - 879
60	05	01	0592	F-35 STOVL Series	Volume 2 - 885
61	05	01	0593	F-35 CV Series	Volume 2 - 905
62	05	01	0595	QRC	Volume 2 - 927
63	05	01	0596	MQ-4 Series	Volume 2 - 929
64	05	01	0598	RQ-21 Series	Volume 2 - 937

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
67	06	01	0605	Spares and Repair Parts	Volume 3 - 1

Appropriation 1506N: Aircraft Procurement, Navy

Line #	BA	BSA	Line Item Number	Line Item Title	Page
68	07	01	0705	Common Ground Equipment	Volume 3 - 11
69	07	01	0715	Aircraft Industrial Facilities	Volume 3 - 81
70	07	01	0720	War Consumables	Volume 3 - 89
71	07	01	0725	Other Production Charges	Volume 3 - 99
72	07	01	0735	Special Support Equipment	Volume 3 - 103
73	07	01	0740	First Destination Transportation	Volume 3 - 105

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

Line Item Title	Line Item Number	Line #	BA	BSA	Page
AEA Systems	0513	29	05	01	Volume 2 - 1
AV-8 Series	0514	30	05	01	Volume 2 - 9
Advanced Helicopter Training System	0344	19	03	01	Volume 1 - 151
Adversary	0522	31	05	01	Volume 2 - 33
Aircraft Industrial Facilities	0715	69	07	01	Volume 3 - 81
Aviation Life Support Mods	0575	50	05	01	Volume 2 - 663
C-130 Series	0560	41	05	01	Volume 2 - 435
C-2A	0556	40	05	01	Volume 2 - 421
C-40A	0246	18	02	01	Volume 1 - 141
CH-53K (Heavy Lift)	0158	7	01	01	Volume 1 - 43
CH-53K (Heavy Lift), Advance Procurement	0158	8	01	01	Volume 1 - 55
Cargo/Transport Acft Series	0562	43	05	01	Volume 2 - 471
Common Avionics Changes	0577	52	05	01	Volume 2 - 703
Common Defensive Weapon System	0581	53	05	01	Volume 2 - 737
Common ECM Equipment	0576	51	05	01	Volume 2 - 677
Common Ground Equipment	0705	68	07	01	Volume 3 - 11
E-2 Series	0544	38	05	01	Volume 2 - 331

Line Item Title	Line Item Number	Line #	BA	BSA	Page
E-2D AHE	0195	16	01	01	Volume 1 - 125
E-2D AHE, Advance Procurement	0195	17	01	01	Volume 1 - 137
E-6 Series	0564	44	05	01	Volume 2 - 495
EP-3 Series	0537	36	05	01	Volume 2 - 307
Executive Helicopters Series	0566	45	05	01	Volume 2 - 553
F-18 Series	0525	32	05	01	Volume 2 - 47
F-35 CV Series	0593	61	05	01	Volume 2 - 905
F-35 STOVL Series	0592	60	05	01	Volume 2 - 885
F-5	0417	22	04	01	Volume 1 - 173
FA-18E/F	0145	1	01	01	Volume 1 - 1
FA-18E/F, Advance Procurement	0145	2	01	01	Volume 1 - 11
First Destination Transportation	0740	73	07	01	Volume 3 - 105
Flt Elect Wrfr Supt Grp (FEWSG)	0561	42	05	01	Volume 2 - 465
H-1 Series	0532	35	05	01	Volume 2 - 275
H-53 Series	0528	33	05	01	Volume 2 - 193
ID Sys	0582	54	05	01	Volume 2 - 745
JSF STOVL	0152	5	01	01	Volume 1 - 29
JSF STOVL, Advance Procurement	0152	6	01	01	Volume 1 - 39
JT Primary Acft Trnr Sys (JPATS)	0571	49	05	01	Volume 2 - 641
Joint Strike Fighter CV	0147	3	01	01	Volume 1 - 15

Line Item Title	Line Item Number	Line #	BA	BSA	Page
Joint Strike Fighter CV, Advance Procurement	0147	4	01	01	Volume 1 - 25
KC-130J	0416	20	04	01	Volume 1 - 159
KC-130J, Advance Procurement	0416	21	04	01	Volume 1 - 169
MAGTF EW for Aviation	0587	56	05	01	Volume 2 - 785
MH-60 Series	0530	34	05	01	Volume 2 - 245
MH-60R	0182	13	01	01	Volume 1 - 103
MQ-4 Series	0596	63	05	01	Volume 2 - 929
MQ-4 TRITON	0442	23	04	01	Volume 1 - 179
MQ-4 TRITON, Advance Procurement	0442	24	04	01	Volume 1 - 189
MQ-8 Series	0588	57	05	01	Volume 2 - 793
MQ-8 UAV	0443	25	04	01	Volume 1 - 193
MQ-9A Reaper	0451	27	04	01	Volume 1 - 215
Next Generation Jammer (NGJ)	0591	59	05	01	Volume 2 - 879
Other Production Charges	0725	71	07	01	Volume 3 - 99
P-3 Series	0538	37	05	01	Volume 2 - 323
P-8 Series	0586	55	05	01	Volume 2 - 751
P-8A Poseidon	0193	14	01	01	Volume 1 - 109
P-8A Poseidon, Advance Procurement	0193	15	01	01	Volume 1 - 121
Power Plant Changes	0570	48	05	01	Volume 2 - 635
QRC	0595	62	05	01	Volume 2 - 927

Line Item Title	Line Item Number	Line #	BA	BSA	Page
RQ-21 Series	0598	64	05	01	Volume 2 - 937
STUASLO	0444	26	04	01	Volume 1 - 203
Spares and Repair Parts	0605	67	06	01	Volume 3 - 1
Special Project Acft	0567	46	05	01	Volume 2 - 583
Special Support Equipment	0735	72	07	01	Volume 3 - 103
T-45 Series	0569	47	05	01	Volume 2 - 591
Trainer Acft Series	0549	39	05	01	Volume 2 - 405
UH-1Y/AH-1Z	0178	11	01	01	Volume 1 - 83
UH-1Y/AH-1Z, Advance Procurement	0178	12	01	01	Volume 1 - 97
V-22 (Medium Lift)	0164	9	01	01	Volume 1 - 59
V-22 (Medium Lift), Advance Procurement	0164	10	01	01	Volume 1 - 77
V-22 (Tilt/Rotor Acft) Osprey	0590	58	05	01	Volume 2 - 819
VH-92A Executive Helo	0455	28	04	01	Volume 1 - 223
War Consumables	0720	70	07	01	Volume 3 - 89

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 06: Aircraft Spares and Repair Parts / BSA 1: Aircraft Spares and Repair Parts	**P-1 Line Item Number / Title:** 0605 / Spares and Repair Parts

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 *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	0.000	2,195.764	1,880.420	2,166.788	0.000	2,166.788	2,082.940	1,980.868	1,654.853	1,599.668	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	0.000	2,195.764	1,880.420	2,166.788	0.000	2,166.788	2,082.940	1,980.868	1,654.853	1,599.668	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**0.000**	**2,195.764**	**1,880.420**	**2,166.788**	**0.000**	**2,166.788**	**2,082.940**	**1,980.868**	**1,654.853**	**1,599.668**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

All aviation spares requirements are developed using accredited sparing models. Funding requirements for major avionics are calculated on an item-by-item basis where possible. APN-6 is a "follower" account providing spares for end-items and modifications procured under APN Budget Activity (BA)'s 1-5 and 7, and follows program changes in end-item quantities, basing scenarios, and maintenance data.

The Initial spares category includes all repairable and consumable allowances to support the quantity and Type/Model/Series (T/M/S) of aircraft in new procurement, during Interim Contractor Support (ICS) to support the Repair of Repairables (ROR) prior to Material Support Date (MSD) and to support aircraft modifications.

Initial spares supporting aircraft procured under APN BA-1 through BA-4 are based on the number of aircraft being procured, basing plans, flying hours, maintenance data, and a number of other data elements derived from the Weapon System Planning Documents and Aircraft Program Data File that are fed into the Readiness Based Sparing model and the Retail Inventory Model for Aviation for the determination of spare engine requirements. Spare engines and engine modules are procured under initial spares during the production of the aircraft and do not transition to Navy Working Capital Funds (NWCF).

The Initial spares category funds the ROR (9401) via contractor support, prior to the MSD, at which time repairs are turned over to the organic depots.

Modification spares (9504) follow the APN BA-5 Modification budget for all T/M/S supporting various Engineering Change Proposals (ECPs) and Operational Safety Improvement Program (OSIP) initiatives.

Spares for Aircraft Support Equipment and Facilities follow the APN BA-7 budget for all T/M/S providing spares for training devices and support equipment (9705-9709).

Replenishment spares provides initial sparing for 6K cognizance material (Cog) containers (9710), Adversary (9711) and Headquarters Replenishment for various programs (9712). Due to the nature of Adversary and Headquarters Replenishment programs, initial spares requirements are supported for the life of the program by APN-6 funding and are not transferred to the Navy Supply System.

The Replenishment category also funds the Aviation Outfitting Account for Repairables (AOA) (9713) and Aviation Outfitting Account for Consumables (ACA)(9714) for initial sparing and range/depth increases.

The Outfitting spares element of the budget is comprised of the Aviation Outfitting Account (AOA), which sources spares utilizing Defense Working Capital Fund and NWCF subsequent to MSD, as well as a limited number of Headquarters Replenishment Accounts for spares procured at Naval Air Systems Command headquarters to support Executive Mission helicopters, inter-service support requirements, and

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 06: Aircraft Spares and Repair Parts / BSA 1: Aircraft Spares and Repair Parts	**P-1 Line Item Number / Title:** 0605 / Spares and Repair Parts	
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		

miscellaneous aircraft systems. Successful execution of AOA and meeting Fleet requirements depends heavily on the synchronization between NWCF Buy-In and APN-6 Buy-Out which requires stability of funding levels for both accounts. AOA fills Aviation and Shore Consolidated Allowances (AVCAL/SHORCAL). AVCALs support carriers and L-decks conducting deployed operations.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 06: Aircraft Spares and Repair Parts / BSA 1: Aircraft Spares and Repair Parts	**P-1 Line Item Number / Title:** 0605 / Spares and Repair Parts

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) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-18	APN spares				- / -	- / 2,195.764	- / 1,880.420	- / 2,166.788	- / -	- / 2,166.788
P-40	**Total Gross/Weapon System Cost**				**- / 0.000**	**- / 2,195.764**	**- / 1,880.420**	**- / 2,166.788**	**- / 0.000**	**- / 2,166.788**

Title represents the P-18 Title for Spares.

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

Justification:
Aviation sparing supports the Chief of Naval Operations' (CNO's) strategy to strengthen naval power at and from sea by maintaining and modernizing a Navy and Marine Corps partnered fleet that is trained and ready to operate and fight decisively in an information domain. Aviation sparing provides the initial plane-side sparing to fill allowances for authorized allowance listings to better meet today's force demands, to meet naval platform support in a highly data-driven, informational environment, and to meet combatant commander needs.

AVCAL/SHORCAL requirements enable carriers/L-decks to conduct deployed operations. Initial contractor spares and engine spares are major cost drivers as new Type/Model/Series (T/M/S) continue to be introduced, procured, and modified for technological improvements in FY20. To field new aircraft, aviation spares support the stand-up of new basing plans and additional support packages. The aviation spares budget further supports the Secretary of Defense's strategy to improve warfighting readiness by addressing urgent warfighting readiness shortfalls.

(1) Initial Spares:
FY2020 Initial spares funding is required for Joint Strike Fighter (JSF) Short Takeoff and Vertical Landing (STOVL) (0152) and JSF Carrier Variant (CV) (0147) to support Initial Operational Capability, meet parts availability, resupply response times, and maintenance requirements, and to continue to progress toward Full Operational Capability. The funding will procure Afloat Spares Packages, Deployment Spares Packages, Base Spares Packages, and the Navy and Marine Corps share of the JSF Global Spares Pool (GSP). The GSP is a foundational tenet of this joint program, whereby the Air Force, Navy, Marine Corps, and eight international countries share the cost of spares, eliminating need for individual entities to procure full depth and range of spares. These initial spares and repair parts are critical to establishing depot maintenance capability and meeting sustainment milestones for all partners.

FY2020 Initial spares funding includes required support of the following aircraft platforms:
CH-53K (0158) - FY20 increase is associated with additional engine and Contractor spares requirements (LAIRCM AAQ-24, Crypto MODs, and ARC-210).
V-22 (0164) - FY20 funding required for spare engines & components as well as contractor spares requirements aligned to the APN-1 aircraft buys, much of which is due to the Navy variant, CMV-22.
P-8 (0193) - FY20 funding supports procurement of Large Aircraft Infrared Counter Measure System Processor Replacement (LAIRCM) Contractor spares.
E-2D AHE (0195) - FY20 funding required for spare engines & components as well as contractor spares requirements aligned to the APN-1 aircraft buys.
Advanced Helicopter Training System (0344) - funding for engine and contractor spares to align to the APN-3 procurement for the training system.
KC-130J (0416) - FY20 funding increase due to increase of spare engine and propeller requirements.
MQ-4C TRITON (0442) - FY20 increase is due to a shift in Material Support Date (MSD) from 4QFY20 to 1QFY23 to align to the Initial Operational Capability (IOC), funding will support initial sparing levels for engines, Contractor spares, and PSE requirements.
MQ-8 UAV (0443) - FY20 funding required for engine and PSE spares related to the UAV APN-4 budget.
VH-92A (0455) - FY20 increased funding supports procurement of Contractor spares, Engines, and Peculiar Support Equipment (PSE) aligned to the APN-4 aircraft buys.

FY2020 funding required for Repair of Repairables (ROR) (9401). ROR increase is due to anticipated additional repairs on new parts based on increased number of aircraft in the fleet for platforms such as for MQ-4 TRITON, F/A-18E/F, VH-92, E-2, P-8 and CH-53K.

FY2020 funding for Spares for Modification (9504) supports the modifications for Next Generation Jammer, P-8, Common ECM equipment, V-22, Trainer Aircraft, and AV-8B modifications.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 06: Aircraft Spares and Repair Parts / BSA 1: Aircraft Spares and Repair Parts	**P-1 Line Item Number / Title:** 0605 / Spares and Repair Parts	
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		

FY2020 funding required for Aircraft Support Equipment and Facilities provides initial spares for Training Devices (9705), Common Support Equipment (CSE) (9707), Consolidated Automated Support Equipment (CASS) (9708), and Tactical Combat Training System (TCTS) (9709). These accounts are critical and tied directly to enabling T/M/S mission success by training pilots and maintainers and ensuring maintenance and planeside support of the aircraft.

(2) Replenishment:
FY2020 funding increase for 6K (Cog) (9710) due to correlation of container requirement increase as the spares being procured increases. Adversary (9711) increase due to increased flight hours of the T-38. Headquarters Replenishment (9712) includes the following platforms: Executive Helicopter Mission, Project Beartrap, E-6B, Direct Support Squadron, and Manned Reconnaissance. Increase in (9712) FY20 is due to the extension of the E-6 service life and prolonged services hours as well as the number of Executive Helicopter variants that will be in the fleet in FY20 during the transition to the new variant.

FY2020 funding is required for replenishment of the Aviation Outfitting Account (AOA) and ACA (9713/9714) spares. The AOA Repairable account is integral in providing sustainment requirements that maintain current operational and wartime readiness for legacy systems such as F/A-18, AV-8B, EA-6B, H-1, MH-53E, MV-22, Common Avionics and Special Programs. Specifically, Aviation Outfitting procures critical initial spare parts to fill AVCAL and SHORCAL requirements in support of the CNO's strategy. Through Outfitting; AOA/ACA funding supports improved aviation operational readiness across the Fleet, fulfilling carrier/amphibious landing deck as well as Naval Air Station allowance growth and supporting repair of AOA assets. Outfitting requirements increase in FY20 due to CMV-22, F/A-18, H-53, H-60, and Common Avionics requirements increasing to support deployed operations.

Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 06 / 1	P-1 Line Item Number / Title: 0605 / Spares and Repair Parts	Title: APN spares

End Item Line Item Number / Name [MDAP/MAIS]	Prior Years ($ M)	FY 2018 ($ M)	FY 2019 ($ M)	FY 2020 Base ($ M)	FY 2020 OCO ($ M)	FY 2020 Total ($ M)
Initial						
BA 01 - Combat Aircraft						
0147 / Joint Strike Fighter CV	-	163.096	176.106	97.612	-	97.612
0152 / JSF STOVL	-	393.509	227.853	229.979	-	229.979
0158 / CH-53K (Heavy Lift)	-	77.103	59.040	98.824	-	98.824
0164 / V-22 (Medium Lift)	-	4.723	3.744	2.523	-	2.523
0193 / P-8A Poseidon	-	100.111	37.428	0.010	-	0.010
0195 / E-2D AHE	-	10.350	12.497	6.926	-	6.926
BA 02 - Airlift Aircraft						
0246 / C-40A	-	11.287	-	0.000	-	0.000
BA 03 - Trainer Aircraft						
0344 / Advanced Helicopter Training System	-	-	-	9.005	-	9.005
BA 04 - Other Aircraft						
0416 / KC-130J	-	1.863	1.196	2.074	-	2.074
0442 / MQ-4 TRITON	-	114.652	43.903	171.874	-	171.874
0443 / MQ-8 UAV	-	0.243	-	0.099	-	0.099
0455 / VH-92A Executive Helo	-	-	80.939	87.983	-	87.983
9401 / Spares for Repair of Repairables	-	23.259	78.388	97.102	-	97.102
BA 05 - Modification of Aircraft						
9504 / Spares for Modifications	-	225.587	181.147	172.905	-	172.905
BA 07 - Aircraft Support Equip & Facilities						
9705 / Spares for Training Devices	-	26.351	39.255	27.343	-	27.343
9707 / Spares for CSE Parts	-	2.559	0.905	0.464	-	0.464
9708 / Spares for CASS Spares	-	2.245	0.841	0.172	-	0.172
9709 / Spares for TCTS Spares	-	0.134	0.808	0.000	-	0.000
Subtotal: Initial	***-***	***1,157.072***	***944.050***	***1,004.895***	***-***	***1,004.895***
Replenishment						
BA 07 - Aircraft Support Equip & Facilities						
9710 / Spares for 6K Cog	-	35.509	13.983	16.605	-	16.605
9711 / Spares for Adversary	-	0.465	0.245	0.493	-	0.493
9712 / Spares for HQ Replenishment	-	53.452	22.783	39.981	-	39.981
9713 / Spares for AOA Repairables	-	850.463	832.093	1,019.879	-	1,019.879

Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 06 / 1	**P-1 Line Item Number / Title:** 0605 / Spares and Repair Parts	**Title:** APN spares

End Item Line Item Number / Name [MDAP/MAIS]	Prior Years ($ M)	FY 2018 ($ M)	FY 2019 ($ M)	FY 2020 Base ($ M)	FY 2020 OCO ($ M)	FY 2020 Total ($ M)
9714 / Spares for AOA Consumables	-	98.803	67.266	84.935	-	84.935
Subtotal: Replenishment	**-**	***1,038.692***	***936.370***	***1,161.893***	**-**	***1,161.893***
Total Cost (Initial + Replenishment)	**-**	**2,195.764**	**1,880.420**	**2,166.788**	**-**	**2,166.788**

Remarks:
FY20 INITIAL SPARES BREAKDOWN($M):

JSF-F-35C CV (J0147): $97.612
Joint Strike Fighter CV Contractor Spares: $61.874
Joint Strike Fighter CV Engine Spares: $35.738

JSF F-35B STOVL (J0152): $229.979
JSF STOVL Contractor Spares: $169.499
JSF STOVL Engine spares: $50.433
JSF STOVL Peculiar Support Equipment (PSE): $10.047

CH-53K (Heavy Lift) (J0158): $98.824
CH-53K (Heavy Lift) Contractor Spares: $89.013
CH-53K (Heavy Lift) Engine Spares: $9.621
CH-53K (Heavy Lift) PSE Spares: $0.190

CMV-22 (Medium Lift) (J0164): $2.523
CMV-22 (Medium Lift) Contractor Spares: $0.201
CMV-22 (Medium Lift) Engine Spares: $2.122
CMV-22 (Medium Lift) PSE Spares: $0.200

P-8A Poseidon (J0193): $0.010
P-8A Poseidon PSE Spares: $0.010

E-2D (J0195): $6.926
E-2D AHE Contractor Spares: $3.347
E-2D AHE Engine Spares: $3.249
E-2D AHE PSE Spares: $0.330

Advanced Helicopter Training System (J0344): $9.005
AHTS Contractor Spares: $2.251
AHTS Engine Spares: $6.754

KC-130J-Marines (J0416): $2.074
KC-130J-Marines Contractor Spares: $1.309
KC-130J-Marines Engine Spares: $0.674
KC-130J-Marines PSE: $0.091

Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 06 / 1	P-1 Line Item Number / Title: 0605 / Spares and Repair Parts	Title: APN spares

MQ-4 TRITON (J0442): $171.874
MQ-4 TRITON Contractor Spares: $167.575
MQ-4 TRITON Engine Spares: $4.045
MQ-4 TRITON PSE: $0.254

MQ-8 UAV (J0443): $0.099
MQ-8 UAV Engine: $0.099

VH-92 Executive Helo (J0455): $87.983
VH-92 Contractor Spares: $72.082
VH-92 Engine Spares: $15.811
VH-92 Peculiar Support Equipment: $0.090

FY20 SPARES FOR REPAIR OF REPAIRABLES (ROR) BREAKDOWN (J9401) ($M): $97.102
AV-8B: $0.700
C-130: $0.698
CASS: $0.274
CH-53K: $14.892
CMV-22: $0.084
COM AVC: $24.981
CSE AVC: $0.100
E-2: $1.688
EP-3E: $0.097
F/A-18: $18.435
H-1: $0.218
MISC ROR: $1.570
MQ-4 Triton: $23.950
MQ-8: $0.335
P-3: $0.078
P-8 MMA: $5.752
VH-92A: $3.250

FY20 MODIFICATION SPARES BREAKDOWN (J9504)($M): $172.905
AV-8B: $1.100
Common ECM Equipment: $36.844
F-18 Series: $22.243
IRST: $20.600
T-45TS (Trainer) Goshawk: $20.026
E-2 Series: $10.305
C-130 Series: $5.832
H-1 Series: $5.589

V-22 (TILT/ROTOR ACFT) OSPREY: $8.533
E-6 SERIES: $3.850
H-60 Series: $16.244
MANNED RECONNAISSANCE SYSTEMS: $4.265
P-3 Series: $0.070
P-8 Series: $9.486
MQ-8 UAV: $2.885
TRAINER ACFT SERIES: $0.267
Common Avionics: $1.854
POWER PLANT CHANGES: $0.285
CASS E03 MOD KITS: $1.597
RQ-21: $1.030

FY20 SPARES FOR TRAINING DEVICES (J9705) ($M): $27.343
TRAINING DEVICES - JSF $3.220
TRAINING DEVICES - VH92 $0.771
TRAINING DEVICES: $23.352

FY20 HQ REPLENISHMENT SPARES BREAKDOWN (J9712)($M): $39.981
EXECUTIVE HELICOPTERS SERIES $13.686
DIRECT SUPPT SQDN $1.634
Project Bear trap $4.300
Manned Reconnaissance Systems: $7.688
E-6 $12.673

FY20 AVIATION OUTFITTING ACCOUNT (AOA) SPARES BREAKDOWN (J9713)($M): $1,019.879
AV-8 SERIES: $1.101
C-130 Series: $3.775
COMMON AVIONICS CHANGES: $38.112
EA-6 SERIES: $1.129
F-18 Series: $38.871
H-1 Series: $13.998
H-53 Series: $13.689
RQ-21 BLACKJACK: $9.067
SITE AVCAL MAINTENANCE: $25.870
SUPPORT EQUIPMENT: $1.219
V-22 (TILT/ROTOR ACFT) OSPREY: $20.193
C-130 Series: $1.696
CMV-22: $75.154
COMMON AVIONICS CHANGES: $88.928

Exhibit P-18, Initial and Replenishment Spare and Repair Parts Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 06 / 1	P-1 Line Item Number / Title: 0605 / Spares and Repair Parts	Title: APN spares

E-2D AHE: $91.660
F-18 Series: $189.782
MH-60R: $88.929
MH-60S: $30.165
MQ-4 TRITON: $2.920
MQ-8 UAV (VTUAV): $22.383
P-3: $1.601
P-8A Poseidon: $163.953
RQ-21 BLACKJACK: $14.807
SASS Special Initiatives: $17.670
SITE AVCAL MAINTENANCE: $60.362
SUPPORT EQUIPMENT: $2.845

FY20 AVIATION OUTFITTING ACCOUNT CONSUMABLES (ACA)SPARES BREAKDOWN (J9714) ($M): $84.935
AV-8B: $0.849
COMMON: $46.714
E-2: $4.247
ENGINES: $9.343
F/A-18: $2.548
H-1: $5.096
H-60: $3.398
P-3: $3.397
SE: $0.849
V-22: $8.494

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment

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

Line Item MDAP/MAIS Code: N/A

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)*	3,034.306	376.920	409.494	491.025	0.000	491.025	461.897	431.679	456.931	453.147	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	3,034.306	376.920	409.494	491.025	0.000	491.025	461.897	431.679	456.931	453.147	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**3,034.306**	**376.920**	**409.494**	**491.025**	**0.000**	**491.025**	**461.897**	**431.679**	**456.931**	**453.147**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Common Ground Equipment line funds procurement of Automatic Test Equipment (ATE), various aircraft systems trainers and training aids, the Consolidated Automated Support System Family of Testers (CASS FOT), support equipment for the Rapid Deployment Force, mobile maintenance facilities for Marine expeditionary forces, and other aircraft ground support equipment that is either peculiar to out-of-production aircraft or common in applicability to more than one aircraft. The requiring managers responsible for these procurements and the funds presently assigned to them are as follows: Ground Support Equipment, Mobile Maint Facilities, General Skills Training, Topscene, and Other Flight Training.

[P40A / AUTOMATIC TEST EQUIPMENT]: This sub-line provides for the transition of current Automated Test Equipment (ATE) Test Program Sets (TPSs) to AN/USM-636 Consolidated Automated Support System (CASS), AN/USM-702 Reconfigurable Transportable CASS (RTCASS) and AN/USM-730 electronic CASS (eCASS), the acquisition/modification of associated test routines of common ATE to meet operational requirements identified in the Fleet-concurred Common Support Equipment Operational List and the acquisition/modification of associated ancillary assets for CASS/RTCASS/eCASS to extend testing capability to meet these requirements.

TEST PROGRAM SETS (TPSs) TRANSITION TO CASS, RECONFIGURABLE TRANSPORTABLE CASS (RTCASS) AND eCASS: TPSs are support equipment consisting of hardware, software and documentation required to automatically fault isolate defective weapon system components and qualify them Ready-For-Issue (RFI). The budget requests funds for the procurement of TPSs to offload support from existing legacy ATE to CASS, RTCASS and eCASS as well as support of GFE requirements and CASS Family of Testers (FOT) stations at designated test integration facilities.

COMMON ATE ACQUISITION, MODIFICATION AND TEST ROUTINES: System acquisition and modification is necessary to replace obsolete and unsupportable equipment, support current technology, incorporate necessary reliability and maintainability improvements and correct Fleet-reported problems as a result of engineering investigations/Quality Deficiency Reports. Without these modifications, replacement parts will not be available and common ATE will not remain operational.

ASSOCIATED ANCILLARY ASSETS: CASS Family Ancillary assets extend the capabilities of CASS, RTCASS and eCASS to meet Unit Under Test (UUT) testing requirements where it is not feasible to upgrade the entire inventory of CASS Family testers. The budget requests funds for the acquisition and modification of these CASS ancillary assets. Without these modifications, these assets and the associated UUTs they support will not remain operational.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

[P40A - 2 / A/C COMMON SUPPORT EQUIPMENT]: This budget sub-line provides for the acquisition of Support Equipment (SE) end items under the inventory and technical management of NAVAIR. These SE end items are required for ground testing handling, and maintenance of aircraft and their systems. Examples of SE items acquired under this budget line item include aircraft propulsion test systems, mobile air conditioners and generators and aircraft handling equipment.

Also included are common avionics support equipment (ASE) items which are too complex technically to be transitioned to the inventory control point for acquisition. The ASE included is managed by NAVAIR and supported through the Navy Inventory Control Point.

[P40A - 3 / ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT]: This budget sub-line funds the procurement of end items of Peculiar Support Equipment (PSE) for out-of-production weapon systems, and Common Support Equipment (CSE) under the budget, procurement, and inventory control of the Naval Inventory Control Point (NAVICP). PSE and CSE end items are normally introduced into the fleet through NAVAIR development and initial procurement. When design is stabilized and procurement packages are available, these items then migrate to NAVICP management, and are funded under this sub-line. NAVICP currently manages over 11,000 individual repairable SE end items. This subline also funds initial outfitting of new construction ships.

This sub-line also provides for the replacement of certain in-use PSE that are now marginally effective, due to obsolescence, or to the unavailability of associated logistics support. As a consequence, a logistically supportable replacement item must be designed and produced. This budget sub-line provides replacement of PSE support for out-of-production aircraft requirements only.

In addition, this sub-line provides for the completion of the design and production of: (1) certain PSE items that were not funded during the production phase of the weapon system, and (2) modifications to out-of-production aircraft PSE to extend its useful service life.

COMFRC CSE Investment funding is required to replace aging and obsolete support equipment that has reached it's useful life at all depot fleet response centers (FRCs) that is negatively impacting both component and aircraft production and throughput. Replacement of this aging and obsolete equipment will support the recovery of Ready Based Aircraft (RBA) rates in the fleet for both USN and USMC aircraft.

[P40A - 4 / CONSOLIDATED AUTOMATED SUPPORT SYSTEM]: The electronic Consolidated Automated Support System (eCASS) program is chartered to replace CASS MainFrame (MF) test stations in the Navy's inventory. CASS, RTCASS, and eCASS continue to replace 30+ different types of computer-based Automatic Test Equipment (ATE) with a single modern family of testers (FOT), which are cost effective COTS/NDI-based ATE systems designated as the Navy's Standard Family of ATE. There are four configurations of eCASS that will be fielded, which support the entire spectrum of electronics testing requirements from direct current to light: Hybrid [tests digital and analog], Radio Frequency (RF) [tests radars and electronic warfare systems], Electro-Optics (EO3) [tests FLIRs and LASERs], and High Power [high energy radar systems]. Reconfigurable Transportable Consolidated Automated Support System (RTCASS) [a man-transportable version of RF CASS] is currently used for USMC forward deployed expeditionary maintenance. eCASS, with its advanced capability to support legacy and emerging platforms, and reduced logistics footprint, will replace the existing configurations of both CASS and RTCASS. The CASS FOT supports intermediate and depot level repair of aircraft, ship, submarine and other weapon system electronics. The CASS FOT performs fault detection and diagnostic testing of almost 3,000 different "black boxes" and associated circuit cards from F/A-18A/B/C/D/E/F, T-45, AV-8B, EA-6B, H-60, H-3, E-2, C-2, and V-22 as well as several NAVSEA/SPAWAR weapon systems. eCASS, which is now in full-rate production, reached IOC in in 4QFY17.

CASS FOT replaces older, legacy ATE systems that have become obsolete (parts are no longer available) and too expensive to maintain. CASS FOT reduces afloat CVN ATE manning from 104 to 54 billets and reduces the size of the AVCAL (spare parts) from 30,000 to 3,500. CASS FOT also reduces technician Naval Enlisted Classifications (NECs) types, along with their training courses, from 32 to only 5. Each CVN will deploy with 14 eCASS stations and each LHD/LHA will deploy with two (2) stations. CASS FOT is utilized at intermediate and depot level maintenance facilities afloat and ashore to include Marine Aviation Logistics Squadrons (MALS), and Navy Fleet Readiness Centers (FRCs). RTCASS supports USMC V-22 and fixed wing aircraft.

Current and budget year requirements are needed for CASS FOT support of new and transitioning weapon systems. New Requirements: F/A-18E/F/G (multiple), P-8 (multiple), E-2C/D (multiple), MIDS (multiple), V-22, ATFLIR (F/A-18), MH-60R/S (multiple systems), UH-1Y and AH-1Z, EGI (multiple aircraft). Transitioning Legacy Testers: 30 legacy automatic testers that support Navy and USMC tactical aircraft.

In addition to production costs for the newest member of the CASS FOT (eCASS), program costs include: (1) incorporation of ECPs to permit systematic insertion of new technology to meet requirements of new weapon system avionics, (2) incorporation of test technologies required to offload Test Program Sets (TPSs) from legacy ATE, (3) efforts to ameliorate obsolescence and improve system reliability, maintainability and supportability, (4) rehosting existing TPSs to leverage increased capabilities of new software technology, (5) providing support of CASS FOT installations at fleet sites afloat and ashore, (6) maintaining items

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

contractually required to be provided to contractors as Government Furnished Equipment, (7) maintaining supporting equipment used at CASS FOT laboratory and testing facilities, and (8) providing ancillary equipment necessary for functionality of CASS FOT.

The purpose of the Fourth-Generation Electro-Optics (EO4) program is to replace aging and obsolete third-generation electro-optic (EO3) consoles with a modernized variant. There are 65 existing Third-Generation Electro-Optics (EO3) systems located at both shore-based and afloat activities. The EO3 systems are hosted by the Consolidated Automated Support System (CASS/eCASS) family of test systems and are used to provide for maintenance, diagnosis, and repair of the H-60R/S Multi-spectral Targeting System (MTS) and the F/A-18C/D/E/F Advanced Targeting Forward Looking Infrared (ATFLIR) weapon systems. The fielded EO3 systems are experiencing increased failure rates and reduced weapon system availability due to obsolescence issues. The EO4 program will replace the existing EO3 systems with a modernized next-generation electro-optics system that is designed and developed as either a new design or an Engineering Change Proposal (ECP) to the existing system, as determined by the competitive procurement process. The EO4 system will meet all existing weapons system requirements, as well as the anticipated emerging requirements of new or upgraded FLIR, laser and optical weapons systems. Full Rate Production (FRP) is planned in FY23.

In addition to production costs, the EO4 program costs also include: (1) incorporation of ECPs to permit systematic insertion of new technology to meet requirements of emerging electro-optic weapon system avionics(2) incorporation of test technologies required to support emerging Test Program Sets (TPSs), (3) efforts to mitigate future obsolescence and improve system reliability, maintainability and supportability, (4) migration of existing TPSs from EO3 to EO4 to leverage increased capabilities of new software and technology, (5) providing support for EO4 installations at fleet sites afloat and ashore, (6) maintaining any contractually provided Government Furnished Equipment.

The EO3 obsolescence issues and increased failure rates are causing degradation to H-60 MTS and F/A-18 ATFLIR weapons system readiness, which results in a Non-Mission Capable (NMC) aircraft status. Without resolution of these issues, availability of these critical weapons systems will continue to degrade. The Center for Naval Analyses (CNA) released a report in March 2016 that strongly recommended proceeding with a next-generation EO4 variant and presented a cost benefit analysis that projected significant (potentially > 60%) EO4 life-cycle cost savings. Historical data depicts that this fielded EO test capability results in $140M of annual cost avoidance for H-60 MTS and F/A-18 ATFLIR weapons system support costs.

[P40A - 5 / MOBILE MAINTENANCE FACILITIES]: The Mobile Facility (MF) Program provides the overarching management construct to ensure configuration management and life cycle logistics for the Fleet MF inventory. The program provides engineering design solutions, production efforts and life cycle logistics in support of Navy and Marine Corps logistics requirements.

The primary component is the MF, a 20'x8'x8' tactical shelter that meets structural and dimensional requirements of the International Organization for Standardization (ISO), the American National Standards Institute (ANSI), and the American Society for Testing and Material (ASTM). Designed for a 20-year service life, MF's are heated and cooled by Environmental Control Units, which the program procures and logistically supports. In tactical environments, electrical power required to support MF complexes is provided by DOD standard generator sets. The Naval Air Systems Command (NAVAIR) acts as the Primary Inventory Control Activity (PICA) for multi-service procurement of NAVAIR MFs and related ancillary equipment.

MF's are an Air Combat Element (ACE) Aviation Logistics (AVLOG) integration enabler, which make the Marine Air Ground Task Force (MAGTF) more responsive, agile, flexible and lethal via support and sustain operations in austere expeditionary environments. This supports the Naval Air Enterprise (NAE) Strategic Plan, Marine Corps Vision & Strategy 2025, and the USMC Long War Concept. MFs provide containerized aviation logistics support to the operational commander that can be rapidly deployed by all transportation modes to any location in the world. Operationally, MFs provide the Navy and Marine Corps with a quick response stand-alone capability to meet worldwide operational commitments. Economically, MFs reduce the need for MILCON and allow for worldwide transportability.

Key Attributes:
- Fully integrated and expeditionary logistics capability deployable via ship, airlift or truck. Operationally deployable aboard Transport-Aviation Logistics Support Ship (TAVB) And Maritime Prepositioning Ships (MPS).
- Provides an effective, reliable and affordable self-contained aircraft maintenance capability (avionics, airframes, et. al.)
- Provides for supply support functions (work space, parts storage & parts transport)

[P40A - 6 / GENERAL SKILLS TRAINING]: General Skill Training provides for the procurement of aviation training systems, including training devices and associated courseware, which are not associated with a specific aircraft platform. As required, includes modifications and updates to reflect changes in technology or operating environment.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

Major Programs: The 'A' School Program's function is to provide initial foundational and theoretical skills training to all Navy/Marine Corps Officer and Enlisted personnel. It provides training for 20 aviation ratings, supporting 196 Navy Enlisted Classifications (NEC), 96 USMC Military Occupational Specialties (MOS) and 17 USN/USMC Officer Designators/MOS's. The Maintenance Computer Based Training (MCBT) program's emphasis is on Fleet In-Service Training using Advance Skills Management System (ASM). ASM is a software application designed to identify job task requirements, assist in determining proficiencies, document qualification/certifications, track completed technical training and aviation maintenance personnel progress across an individual's career within their respective Maintenance Personnel Readiness (MPR)/Marine Corp Training & Readiness (T&R) in support of the Naval Aviation Enterprise (NAE). The Air Traffic Control (ATC) program provides the necessary simulated training for control tower operations, Carrier Air Traffic Control Center operations, Amphibious Air Traffic Control Center operations and shore based RADAR operations. The Landing Signal Officer (LSO) Program enables proficiency at visual aircraft recoveries while at sea, through the use of an aircraft carrier landing area trainer. The Naval Aviation Survival Training Program (NASTP) provides mission critical survival training systems and systems support for Navy and Marine Corps Aircrew and selected DoD personnel. The Air Combat Training Continuum (ACTC) Program provides the framework for post-Fleet Replacement Squadron (FRS) tactical aircrew training. The mission of ACTC is to provide Fleet, Joint, and Allied Force Commanders with quality combat-ready Naval Aviators capable of effectively executing in all mission areas. The Air Combat Training System (ACTS) is a Training Management System (TMS) that operates in a secure environment, ashore, and afloat, to deliver training content to the aviator as well as track and report his/her progress through the ACTC curriculum. Common ASW (CASW) produces airborne ASW training systems for officer and enlisted Aircrew for all ASW platforms (including P-3, H-60, P-8 and Triton) teaching critical analysis skills using computer courseware, table top trainers and ONI analysis products.

[P40A - 7 / TOPSCENE]: TOPSCENE is a mission planning requirement that provides realistic 3D mission rehearsal, training, and reusable visual terrain databases to the Navy Fleet, Fleet Marine Forces, major war fighting commands, and unified commanders. TOPSCENE/Tactical Terrain Visualization System (TTVS) includes a range of programs including mission rehearsal tools, part simulation, and target database production tools. TOPSCENE/TTVS provides time critical mission rehearsal visual database of sensitive target areas for effective preparation of the battlefield. TOPSCENE/TTVS is a standalone application that may also be integrated with mission planning systems (JMPS) and contributes to satisfying the mission rehearsal requirement in the JMPS Operational Requirements Document.

[P40A - 8 / OTHER FLIGHT TRAINING]: Other Flight Training procures upgrades/modernization to operational trainers not driven by retrofit changes to aircraft driven by an Operational Safety and Improvement Program (OSIP) or forward-fit changes made during the production of the aircraft classified as an investment cost. Also, trainer procurements to replace obsolete/beyond capability of repair trainers if classified as an investment cost are included.

Navy Aviation Simulation Master Plan (NASMP) investments modernize multiple Navy platform training systems through obsolescence mitigation and fidelity improvements. Recent efforts through FY20 have focused on closing F/A-18 and H-60 training system performance gaps in accordance with the NASMP to enable higher quality Virtual-Constructive (VC) training. Follow-on NASMP requirements for FY20 through the FYDP will fund fidelity improvements, obsolescence upgrades and distributed mission training (DMT) connectivity across all Navy Aviation T/M/S trainers. NASMP procures expanded Integrated Training capabilities for the Fleet at the Naval Air Warfare Development Center (NAWDC) at Fallon, NV, through the Integrated Training Facility (ITF), Air Wing Training Facility (AWTF), and Air Defense Strike Group Facility (ADSGF). Expansion of the Navy Aviation Distributed Training Center (NADTC) will provide multi-level security and capability to conduct two distributed mission training events in parallel.

The Headquarters, Marine Corps (HQMC) Federation will invest in modernization of USMC KC-130, H-1, CH-53, V-22, F/A-18C/D, AV-8B, Presidential Helicopters, Marine Air Ground Task Force (MAGTF) Integration, Aviation Command and Control, Close Air Support/Joint Terminal Attack Controller (CAS/JTAC), and common systems training devices as planned in the HQMC Aviation Plan (AVPLAN). The Aviation Distributed Virtual Training Environment (ADVTE) infrastructure, along with the Tactical Environment (TEn) software will be modernized for existing 2nd and 3rd Marine Air Wing (MAW) sites; while ADVTE capability will be procured and installed for 1st and 4th MAW sites. Live Virtual Constructive (LVC) requirements will establish persistent integrated training between Naval Forces (Navy and Marine Corps); Joint, Interagency, International, Multinational (JIIM) partners; AEGIS; Carrier Air Wing; Maritime; and Unmanned Aerial Systems (UAS) aircraft, equipment, platforms, systems, and their respective training assets by enabling an LVC capability with live aircraft on various Department of Defense range facilities. To facilitate LVC integration into the USMC training systems, Marine Virtual Warfare Center (MVWC), and Common Virtual Training Environment (CVAT) will be required. Training courseware and curriculums will be procured for transformational Marine Corps Aircraft.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment

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

Line Item MDAP/MAIS Code: N/A

Exhibits Schedule					Prior Years	FY 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-40a	AUTOMATIC TEST EQUIPMENT				- / 396.745	- / 23.909	- / 25.451	- / 23.645	- / -	- / 23.645
P-40a	A/C COMMON SUPPORT EQUIPMENT	P-5a, P-21			- / 364.065	- / 56.858	- / 58.486	- / 57.601	- / -	- / 57.601
P-40a	ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT				- / 203.172	- / 27.958	- / 52.677	- / 24.863	- / -	- / 24.863
P-40a	CONSOLIDATED AUTOMATED SUPPORT SYSTEM	P-5a, P-21			- / 961.178	- / 80.232	- / 86.365	- / 85.954	- / -	- / 85.954
P-40a	MOBILE MAINTENANCE FACILITIES	P-5a			- / 129.310	- / 6.818	- / 6.841	- / 6.947	- / -	- / 6.947
P-40a	GENERAL SKILLS TRAINING	P-5a			- / 54.510	- / 10.422	- / 10.460	- / 10.275	- / -	- / 10.275
P-40a	TOPSCENE	P-5a, P-21			- / 10.623	- / -	- / -	- / -	- / -	- / -
P-40a	OTHER FLIGHT TRAINING	P-5a, P-21			- / 914.703	- / 170.723	- / 169.214	- / 281.740	- / -	- / 281.740
P-40	**Total Gross/Weapon System Cost**				**- / 3,034.306**	**- / 376.920**	**- / 409.494**	**- / 491.025**	**- / 0.000**	**- / 491.025**

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

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

Justification:

AUTOMATIC TEST EQUIPMENT:
FY20 provides funding to offload multiple weapon system Operation Test Program Sets (OTPSs) to CASS, RTCASS, eCASS and funds production of several High Speed Subsystem (HSS) ancillary assets.

A/C COMMON SUPPORT EQUIPMENT:
FY20 provides funding to procure: Shore 1000/2000 Gallon Lox Tanks, V35 Dynamometer Replacement, SD2 Replacement, 1500lb Utility Maintenance Crane, Diesel & Electric Servicing Platform, Medium Capacity MEPP, First Destination Transportation Cost for hardware, Engineering Change Proposals to address minor CSE performance and obsolescence issues and associated support cost.

ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT:
FY20 provides funding for the procurement of end items of Peculiar Support Equipment(PSE) for out-of-production weapon systems and Common Support Equipment (CSE) under the budget, procurement and inventory control of Naval Inventory Control Point (NAVICP).

CONSOLIDATED AUTOMATED SUPPORT SYSTEM:
FY20 provides funding to procure (28) eCASS systems and associated ancillary equipment.

MOBILE MAINTENANCE FACILITIES:
Investment in the MF Program ensures a fully deployable logistics capability that can be deployed in a building block fashion across the battle space, whether at sea or on land, in support of aircraft maintenance and supply support operations. The Program of Record inventory objective is 3,531 MFs. This objective is based on the Marine Corps Table of Basic Allowance (TBA) and Weapon System Planning Documents (WSPD), which find their roots in the various operational plans supporting the National Defense Strategy. Current active inventory is 3,119 MFs.

GENERAL SKILLS TRAINING:
ACTS: Upgrades 50 Air Combat Training System (ACTS) expeditionary Laptops that provide a mobile ACTC training capability to deploying Aircrew.

ATC: Provides for the upgrade and modernization of 39 15G34 Tower Simulation Systems (TSS) which provide realistic on-site Air Traffic Control training at Navy and Marine Air Stations and other facilities.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

NASTP: Upgrades the 9H1 Helo Hoist Trainer (Helo dunker) and 9F9A Parachute Over Water Survival Trainer (POST) to eliminate obsolescence issues and provide safe survival training for Aircrew.

CASW: Upgrades the Interactive Multi-Sensors Analysis Trainer (IMAT) trainer courseware to incorporate the latest learning technology and ASW threat analysis.

OTHER FLIGHT TRAINING:
Increase in FY20 represents a significant investment in Naval Aviation training to reduce obsolescence, modernize existing hardware/software and provide a broad and robust increase in both individual and unit training capabilities at all levels and reduce operating costs to the Naval Aviation Enterprise.

NASMP/LVC Programs:
CNATRA: Upgrade Chief of Naval Aviation Training (CNATRA) Simulators and Ground Based Training Systems (GBTS). Investment is necessary to address obsolescence issues and keep CNATRA simulators operable for a continuous 16 hours a day, 252 days per year to meet pilot and Naval Flight Officer production goals. FY20 efforts include tech refresh of T-45C OFT at Kingsville, tech refresh of the T-45C aft cockpit Virtual Mission Training System (VMTS) OFT at Pensacola, and tech refresh of T-45C Virtual Mission Training System (VMTS) Instructor Ground Station (IGS) at Pensacola.

NADTC and Distributed Mission Training: Procure Strike Distributed Mission Training (DMT) capability enhancements to ensure electronic warfare/threat simulation is common across all mission participants, resolve simulator network discrepancies, address platform trainer limitations that prevent repeatable distributed training capability, voice communications upgrades, and jamming. Includes updated hardware and software for Navy Aviation Distributed Training Center (NADTC) to provide simultaneous operations, expanded training support, and multi-level security architecture.

NCTE: Procurement of Navy Continuous Training Environment (NCTE) nodes to increase Fleet Live, Virtual and Constructive training capabilities.

Cross Domain Solutions: Upgrade to Cross Domain Solution (CDS) to meet multi-level security requirements for unit level and distributed mission training events.

FA/EA-18: Procure F/A-18 cockpit hardware upgrades, aero model upgrades, own ship upgrades, console and display upgrades, and audio control upgrades necessary to meet NASMP end-state requirements for simulation fidelity, allowing more training and readiness to be conducted in simulators and reducing costs in the flying hour program. Procure F/A-18 Low Cost Trainers (LCTs) to address simulator training capacity requirements for Naval Integrated Fire Control (NIFC) distributed training and NASMP end-state requirements at East and West coast sites. LCTs will be integrated with common NCTE.

P-8A: Upgrade P-8A training devices at NAS Jacksonville, FL and NAS Whidbey Island, WA to Windows 10 to meet cybersecurity requirements necessary to retain Authority to Operate (ATO) and Authority to Connect (ATC) to the NCTE.

E-2D: Upgrade E-2D Hawkeye Integrated Training System (HITS) to Windows 10 to meet cybersecurity requirements necessary to retain Authority to Operate (ATO) and Authority to Connect (ATC) to the NCTE. Upgrade is required to enable Distributed Mission Training and support Fleet NIFC and LVC training requirements. Upgrade obsolete E-2D Simulated Maintenance Trainer (SMT). Upgrade common NGTS Synthetic Environment Generator to most up-to-date version to model friendly and adversary aircraft, ground units, ships, submarines, associated weapons, sensors and subsystems.

E-6B: Modernize the E-6 Operational Flight Trainer (OFT) to increase maintainability and availability for Fleet training requirements which include maneuvers and flight situations that cannot be performed safely in the aircraft.

MH-53E: Modernize MH-53 Airborne Mine Counter Measures (AMCM) Stream and Recovery Module (ASRM) to increase Fleet Anti Mine training capability.

Naval Air Warfare Development Facility (NAWDC)/LVC/Air Defense Strike Group Facility (ADSGF): Procure LCTs for fielding and integration within the Integrated Training Facility (ITF) Fallon, NV and integrate training system architectures at both the ITF and ADSGF.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** N/A	**Other Related Program Elements:** N/A
Line Item MDAP/MAIS Code: N/A		

HQMC Federation Programs:
FA-18C/D: Modernize F/A-18C/D Tactical Operational Flight Trainers (TOFT) to reduce obsolescence, increase maintainability/operability and to provide increased Training and Readiness capabilities for Marine Aircrews. Increases in trainer T&R can provide for the reduction in aircraft flying hour costs and improve mission readiness.

MV-22: MV-22 Containerized Flight Training Device (CFTD) modernization will upgrade obsolete components and improve trainer availability (less down time). Over 50% of Aircrew flight training is conducted in the CFTD directly reducing flying hour costs and improving mission readiness of aircraft.

Aviation Distributed Virtual Training Environment (ADVTE): Expansion and modernization of ADVTE, to include implementation of a Common Virtual Training Area (CVTA), upgrading of the Tactical Environment network (Ten), Marine Virtual Warfare Center (MVWC) and Common Virtual Training Environment (CVAT).

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: AUTOMATIC TEST EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) TPS Transition to CASS	A		-	-	274.235	-	-	17.703	-	-	18.830	-	-	17.325	-	-	-	-	-	17.325
Subtotal: 1) Hardware			**-**	**-**	***274.235***	**-**	**-**	***17.703***	**-**	**-**	***18.830***	**-**	**-**	***17.325***	**-**	**-**	**-**	**-**	**-**	***17.325***
2) Non-Recurring																				
2.1) TPS Transition to CASS	A		-	-	7.820	-	-	0.957	-	-	0.973	-	-	1.009	-	-	-	-	-	1.009
Subtotal: 2) Non-Recurring			**-**	**-**	***7.820***	**-**	**-**	***0.957***	**-**	**-**	***0.973***	**-**	**-**	***1.009***	**-**	**-**	**-**	**-**	**-**	***1.009***
3) ILS																				
3.1) TPS Transition to CASS	A		-	-	27.973	-	-	1.646	-	-	1.797	-	-	1.817	-	-	-	-	-	1.817
Subtotal: 3) ILS			**-**	**-**	***27.973***	**-**	**-**	***1.646***	**-**	**-**	***1.797***	**-**	**-**	***1.817***	**-**	**-**	**-**	**-**	**-**	***1.817***
4) Production Engineering																				
4.1) TPS Transition to CASS	A		-	-	86.717	-	-	3.603	-	-	3.851	-	-	3.494	-	-	-	-	-	3.494
Subtotal: 4) Production Engineering			**-**	**-**	***86.717***	**-**	**-**	***3.603***	**-**	**-**	***3.851***	**-**	**-**	***3.494***	**-**	**-**	**-**	**-**	**-**	***3.494***
Total			**-**	**-**	**396.745**	**-**	**-**	**23.909**	**-**	**-**	**25.451**	**-**	**-**	**23.645**	**-**	**-**	**-**	**-**	**-**	**23.645**

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) Weapons Control - Cralts Replacement (CAATS)(†)	A		131,845.16	155	20.436	120,810.81	37	4.470	140,000.00	26	3.640	-	-	-	-	-	-	-	-	-
1.2) Vibration - Vibration Analyzer (1)(†)	B		56,250.00	8	0.450	14,490.00	100	1.449	10,000.00	100	1.000	-	-	-	-	-	-	-	-	-
1.3) Shipboard Fire Trucks - A/S32-P-25A Fire Truck CILOP	A		161,200.00	65	10.478	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement(†)	B		-	-	-	-	-	-	65,000.00	5	0.325	-	-	-	-	-	-	-	-	-
1.5) S/W Loader - Next Generation Software Loader(†)	A		37,969.98	533	20.238	42,000.00	116	4.872	42,000.00	40	1.680	-	-	-	-	-	-	-	-	-
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks(†)	B		-	-	-	-	-	-	200,000.00	7	1.400	200,000.00	16	3.200	-	-	-	200,000.00	16	3.200
1.7) Hydraulics - Hydraulic Test Stand I Level(†)	A		164,387.10	62	10.192	144,000.00	12	1.728	-	-	-	-	-	-	-	-	-	-	-	-
1.8) Hydraulics - Particle Counter(†)	B		-	-	-	-	-	-	15,000.00	10	0.150	-	-	-	-	-	-	-	-	-
1.9) Propulsion - V35 Dynamometer Replacement(†)	B		-	-	-	-	-	-	-	-	-	917,000.00	1	0.917	-	-	-	917,000.00	1	0.917
1.10) Platform Support - Air Conditioner Ship Shore(†)	A		125,718.61	231	29.041	260,000.00	20	5.200	-	-	-	-	-	-	-	-	-	-	-	-
1.11) Platform Support - SD2 Replacement (2)(†)	B		-	-	-	155,000.00	5	0.775	-	-	-	155,000.00	60	9.300	-	-	-	155,000.00	60	9.300
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)(†)	B		-	-	-	-	-	-	-	-	-	65,000.00	5	0.325	-	-	-	65,000.00	5	0.325
1.14) Platform Support - Diesel & Electric Servicing Platform(†)	B		-	-	-	-	-	-	-	-	-	100,000.00	6	0.600	-	-	-	100,000.00	6	0.600

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.16) Electrical - Large Capacity MEPP(†)	A		70,341.77	395	27.785	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.17) Electrical - Small Capacity MEPP (Shipboard)(†)	A		200,000.00	5	1.000	164,000.00	33	5.412	170,000.00	35	5.950	-	-	-	-	-	-	-	-	-
1.18) Electrical - Medium Capacity MEPP(†)	B		-	-	-	-	-	-	-	-	-	86,500.00	4	0.346	-	-	-	86,500.00	4	0.346
1.19) Electrical - AECTS Replacement/ Modification(†)	B		-	-	-	-	-	-	950,000.00	5	4.750	-	-	-	-	-	-	-	-	-
1.20) Electriconic Warfare- JSECST Upgrade	A		49,103.66	164	8.053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.21) First Destination Transportation Costs (4)	A		-	-	0.800	-	-	0.800	-	-	0.800	-	-	0.700	-	-	-	-	-	0.700
1.22) Engineering Change Proposal (ECP) (5)	A		-	-	-	-	-	-	-	-	0.475	-	-	0.500	-	-	-	-	-	0.500
Subtotal: 1) Hardware			**-**	**-**	***128.473***	**-**	**-**	***24.706***	**-**	**-**	***20.170***	**-**	**-**	***15.888***	**-**	**-**	**-**	**-**	**-**	***15.888***
2) Non Recurring																				
2.1) Weapons Control	A		-	-	5.742	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) Vibration	A		-	-	3.306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6) COMM/NAV I/D	A		-	-	0.692	-	-	-	-	-	3.800	-	-	-	-	-	-	-	-	-
2.7) Software Load	A		-	-	6.766	-	-	-	-	-	-	-	-	0.620	-	-	-	-	-	0.620
2.8) Non Destruct Inspection (NDI)	A		-	-	0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.9) Cryogenics (6)	A		-	-	-	-	-	-	-	-	0.200	-	-	-	-	-	-	-	-	-
2.10) Hydraulics	A		-	-	3.071	-	-	-	-	-	2.000	-	-	-	-	-	-	-	-	-
2.11) Propulsion	A		-	-	2.782	-	-	-	-	-	-	-	-	2.050	-	-	-	-	-	2.050
2.12) Platform Support	A		-	-	2.893	-	-	4.500	-	-	-	-	-	6.957	-	-	-	-	-	6.957
2.13) Electrical	A		-	-	5.162	-	-	-	-	-	5.675	-	-	4.800	-	-	-	-	-	4.800
2.14) Electronic Warfare	A		-	-	0.859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) Non Recurring			**-**	**-**	***31.290***	**-**	**-**	***4.500***	**-**	**-**	***11.675***	**-**	**-**	***14.427***	**-**	**-**	**-**	**-**	**-**	***14.427***
3) ILS																				
3.1) Weapons Control	A		-	-	1.942	-	-	0.293	-	-	0.295	-	-	0.297	-	-	-	-	-	0.297
3.2) Vibration	A		-	-	0.803	-	-	0.101	-	-	0.101	-	-	0.080	-	-	-	-	-	0.080

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.3) Corrosion	A		-	-	0.581	-	-	0.055	-	-	0.050	-	-	0.040	-	-	-	-	-	0.040
3.4) Aircraft Wiring	A		-	-	0.959	-	-	0.145	-	-	0.147	-	-	0.145	-	-	-	-	-	0.145
3.5) Shipboard Fire Trucks	A		-	-	0.938	-	-	0.088	-	-	0.080	-	-	0.075	-	-	-	-	-	0.075
3.6) COMM/NAV I/D	A		-	-	1.754	-	-	0.100	-	-	0.100	-	-	0.085	-	-	-	-	-	0.085
3.7) Software Load	A		-	-	0.602	-	-	0.090	-	-	0.095	-	-	0.096	-	-	-	-	-	0.096
3.8) Non Destruct Inspection (NDI)	A		-	-	3.408	-	-	0.300	-	-	0.295	-	-	0.275	-	-	-	-	-	0.275
3.9) Cryogenics	A		-	-	1.517	-	-	0.200	-	-	0.200	-	-	0.195	-	-	-	-	-	0.195
3.10) Hydraulics	A		-	-	1.150	-	-	0.189	-	-	0.200	-	-	0.260	-	-	-	-	-	0.260
3.11) Propulsion	A		-	-	5.181	-	-	0.722	-	-	0.730	-	-	0.750	-	-	-	-	-	0.750
3.12) Platform Support	A		-	-	9.449	-	-	1.385	-	-	1.390	-	-	1.395	-	-	-	-	-	1.395
3.13) Electrical	A		-	-	4.947	-	-	0.840	-	-	0.840	-	-	0.840	-	-	-	-	-	0.840
3.14) Electronic Warfare	A		-	-	0.825	-	-	0.100	-	-	0.090	-	-	0.087	-	-	-	-	-	0.087
Subtotal: 3) ILS			**-**	**-**	***34.056***	**-**	**-**	***4.608***	**-**	**-**	***4.613***	**-**	**-**	***4.620***	**-**	**-**	**-**	**-**	**-**	***4.620***
4) Production Engineering Support																				
4.1) Weapons Control	A		-	-	9.943	-	-	1.424	-	-	1.425	-	-	1.420	-	-	-	-	-	1.420
4.2) Vibration	A		-	-	4.101	-	-	0.506	-	-	0.440	-	-	0.380	-	-	-	-	-	0.380
4.3) Corrosion	A		-	-	0.936	-	-	0.082	-	-	0.080	-	-	0.078	-	-	-	-	-	0.078
4.4) Aircraft Wiring	A		-	-	4.780	-	-	0.615	-	-	0.610	-	-	0.600	-	-	-	-	-	0.600
4.5) Shipboard Fire Trucks	A		-	-	6.849	-	-	0.931	-	-	0.930	-	-	0.928	-	-	-	-	-	0.928
4.6) COMM/NAV I/D	A		-	-	8.942	-	-	1.191	-	-	1.190	-	-	1.188	-	-	-	-	-	1.188
4.7) Software Load	A		-	-	5.214	-	-	0.726	-	-	0.725	-	-	0.723	-	-	-	-	-	0.723
4.8) Non Destruct Inspection (NDI)	A		-	-	11.303	-	-	1.411	-	-	1.433	-	-	1.436	-	-	-	-	-	1.436
4.9) Cryogenics	A		-	-	10.585	-	-	1.335	-	-	1.411	-	-	1.415	-	-	-	-	-	1.415
4.10) Hydraulics	A		-	-	6.790	-	-	0.900	-	-	0.925	-	-	1.023	-	-	-	-	-	1.023
4.11) Propulsion	A		-	-	19.827	-	-	2.551	-	-	2.545	-	-	2.475	-	-	-	-	-	2.475
4.12) Platform Support	A		-	-	24.640	-	-	3.237	-	-	3.120	-	-	3.090	-	-	-	-	-	3.090
4.13) Electrical	A		-	-	8.594	-	-	1.242	-	-	1.250	-	-	1.311	-	-	-	-	-	1.311
4.14) Electronic Warfare	A		-	-	9.377	-	-	1.305	-	-	1.310	-	-	1.325	-	-	-	-	-	1.325
Subtotal: 4) Production Engineering Support			**-**	**-**	***131.881***	**-**	**-**	***17.456***	**-**	**-**	***17.394***	**-**	**-**	***17.392***	**-**	**-**	**-**	**-**	**-**	***17.392***
5) Installations																				

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
5.1) Non FMP Installations	A		-	-	19.436	-	-	2.636	-	-	2.016	-	-	2.074	-	-	-	-	-	2.074
5.2) FMP Installations	A		-	-	18.929	-	-	2.952	-	-	2.618	-	-	3.200	-	-	-	-	-	3.200
Subtotal: 5) Installations			**-**	**-**	***38.365***	**-**	**-**	***5.588***	**-**	**-**	***4.634***	**-**	**-**	***5.274***	**-**	**-**	**-**	**-**	**-**	***5.274***
Total			**-**	**-**	**364.065**	**-**	**-**	**56.858**	**-**	**-**	**58.486**	**-**	**-**	**57.601**	**-**	**-**	**-**	**-**	**-**	**57.601**

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

(†) indicates the presence of a P-5a

Footnotes:

(1) Due to performance issues, Vibration Analyzer program scope changed from replacing the legacy test set to modifying the test set to remove obsolete parts resulting in a unit cost and quantity adjustment. FY18 unit cost includes non-recurring efforts to identify replacement parts and update technical documentation.

(2) FY18 Platform Support - SD2 Replacement procuring Pilot Production Units that will undergo Test and Evaluation. FY20 Platform Support - SD2 Replacement First Production Year awarded upon completion of Testing.

(3) FY20 Platform Support - 1500lb Utility Maintenance Crane procuring Pilot Production Units that will undergo Test and Evaluation. FY22 Platform Support - 1500lb Utility Maintenance Crane First Production Year awarded upon completion of Testing.

(4) Transportation Code in prior years was budgeted under Production Engineering Support. Transportation Cost are not included in Unit Price in prior years or within the Future Year Defense Plan (FYDP).

(5) Engineering Change Proposal (ECP) line created to address CSE emerging obsolescence issues identified requiring immediate support to maintain fleet capability.

(6) The FY19 non-recurring for 2.6 COMM/NAV ID, 2.9 Cryogenics, 2.10 Hydraulics, and 2.13 Electrical includes technical drawings, maintenance plans, contractor performed testing, technical manuals and provisioning data.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Hardware												
1.1) Weapons Control - Cralts Replacement (CAATS)(†)		2017	BEHLMAN ELECTRONICS INC / HAUPPAUGE NY	C / FFP	NAWCAD LKE	Sep 2017	Feb 2019	47	112,042.55	Y		
1.1) Weapons Control - Cralts Replacement (CAATS)(†)		2018	BEHLMAN ELECTRONICS INC / HAUPPAUGE NY	C / FFP	NAWCAD LKE	Nov 2017	Sep 2019	37	120,810.81	Y		
1.1) Weapons Control - Cralts Replacement (CAATS)(†)		2019	BEHLMAN ELECTRONICS INC / HAUPPAUGE NY	C / FFP	NAWCAD LKE	Nov 2018	Feb 2020	26	140,000.00	Y		
1.2) Vibration - Vibration Analyzer (1)(†)		2018	ACES SYSTEMS / KNOXVILLE TN	SS / FFP	NAWCAD LKE	Apr 2019	Aug 2019	100	14,490.00	Y		
1.2) Vibration - Vibration Analyzer (1)(†)		2019 (7)	ACES SYSTEMS / KNOXVILLE TN	SS / FFP	NAWCAD LKE	Aug 2019	Dec 2019	100	10,000.00	Y		
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement(†)		2019	TBD / TBD	C / FFP	NAWCAD LKE	Jul 2019	Jan 2020	5	65,000.00	Y		May 2018
1.5) S/W Loader - Next Generation Software Loader(†)		2017	NSWC CRANE / IN	PO	NSWC CRANE	Dec 2016	Dec 2017	120	37,967.00	Y		
1.5) S/W Loader - Next Generation Software Loader(†)		2018	NSWC CRANE / IN	PO	NSWC CRANE	Oct 2017	Dec 2018	116	42,000.00	Y		
1.5) S/W Loader - Next Generation Software Loader(†)		2019	NSWC CRANE / IN	PO	NSWC CRANE	Oct 2018	Nov 2019	40	42,000.00	Y		
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks(†)		2019	TBD / TBD	C / FFP	NAWCAD LKE	Jul 2019	Apr 2020	7	200,000.00	Y		Mar 2018
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks(†)		2020	TBD / TBD	C / FFP	NAWCAD LKE	Mar 2020	Sep 2020	16	200,000.00	Y		Mar 2018
1.7) Hydraulics - Hydraulic Test Stand I Level(†)		2016	Hydraulics International Inc. (1) / CHATSWORTH CA	C / FFP	NAWCAD LKE	Dec 2015	Oct 2017	22	121,636.36	Y		Aug 2011
1.7) Hydraulics - Hydraulic Test Stand I Level(†)		2017	Hydraulics International Inc. (1) / CHATSWORTH CA	C / FFP	NAWCAD LKE	Nov 2016	Sep 2018	14	123,642.86	Y		Aug 2011
1.7) Hydraulics - Hydraulic Test Stand I Level(†)		2018	Hydraulics International Inc. (1) / CHATSWORTH CA	C / FFP	NAWCAD LKE	Oct 2017	Apr 2019	12	144,000.00	Y		Aug 2011
1.8) Hydraulics - Particle Counter(†)		2019	TBD / TBD	C / FFP	NAWCAD LKE	Jul 2019	Apr 2020	10	15,000.00	Y		Mar 2018
1.9) Propulsion - V35 Dynamometer Replacement(†)		2020	Concepts ETI Inc. / White River Junction, VT	SS / FFP	NAWCAD LKE	Mar 2020	Feb 2021	1	917,000.00	Y		Mar 2019
1.10) Platform Support - Air Conditioner Ship Shore(†)		2015	DRS TECHOLOGIES (2) / FLORENCE, KY	C / FFP	NAWCAD LKE	Jun 2017	Jun 2018	94	131,680.85	Y		Dec 2009

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.10) Platform Support - Air Conditioner Ship Shore(†)		2016	DRS TECHOLOGIES (1) / FLORENCE, KY	C / FFP	NAWCAD LKE	Jun 2017	May 2019	55	131,680.85	Y		Dec 2009
1.10) Platform Support - Air Conditioner Ship Shore(†)		2017	DRS TECHOLOGIES (1) / FLORENCE, KY	C / FFP	NAWCAD LKE	Jun 2017	Oct 2019	74	107,135.14	Y		Dec 2009
1.10) Platform Support - Air Conditioner Ship Shore(†)		2018	DRS TECHOLOGIES (1) / FLORENCE, KY	SS / FFP	NAWCAD LKE	Feb 2019	Nov 2020	20	260,000.00	Y		Dec 2009
1.11) Platform Support - SD2 Replacement (2)(†)		2018	Hydraulics International Inc. (1) / CHATSWORTH CA	C / FFP	NAWCAD LKE	Dec 2017	Feb 2019	5	155,000.00	Y		Nov 2016
1.11) Platform Support - SD2 Replacement (2)(†)		2020	Hydraulics International Inc. (1) / CHATSWORTH CA	C / FFP	NAWCAD LKE	Jun 2020	May 2021	60	155,000.00	Y		Nov 2016
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)(†)		2020	TBD / TBD	C / FFP	NAWCAD LKE	Mar 2020	Feb 2021	5	65,000.00	Y		Mar 2019
1.14) Platform Support - Diesel & Electric Servicing Platform(†)		2020	TBD / TBD	C / FFP	NAWCAD LKE	Mar 2020	Feb 2021	6	100,000.00	Y		Mar 2019
1.16) Electrical - Large Capacity MEPP(†)		2015	Essex Electro Engineers, Inc / Schaumburg, IL	C / FFP	NAWCAD LKE	Mar 2016	Apr 2017	112	70,776.79	Y		Apr 2010
1.16) Electrical - Large Capacity MEPP(†)		2016	Essex Electro Engineers, Inc / Schaumburg, IL	C / FFP	NAWCAD LKE	Mar 2016	Nov 2017	105	68,457.14	Y		Apr 2010
1.16) Electrical - Large Capacity MEPP(†)		2017	Essex Electro Engineers, Inc / Schaumburg, IL	C / FFP	NAWCAD LKE	Jan 2017	Jun 2018	62	70,467.74	Y		Apr 2010
1.17) Electrical - Small Capacity MEPP (Shipboard)(†)		2018	JBT CORP / OGDEN, UT	C / FFP	NAWCAD LKE	May 2018	Nov 2018	33	164,000.00	Y		Nov 2013
1.17) Electrical - Small Capacity MEPP (Shipboard)(†)		2019	JBT CORP / OGDEN, UT	C / FFP	NAWCAD LKE	Dec 2018	May 2019	35	170,000.00	Y		Nov 2013
1.18) Electrical - Medium Capacity MEPP(†)		2020	TBD / TBD	C / FFP	NAWCAD LKE	Mar 2020	Feb 2021	4	86,500.00	Y		Mar 2019
1.19) Electrical - AECTS Replacement/Modification(†)		2019	TBD / TBD	C / FFP	NAWCAD LKE	Jul 2019	Feb 2021	5	950,000.00	Y		Mar 2018

(†) indicates the presence of a P-21

Footnotes:

(7) The Vibration Analyzer program change to implement an ECP to remove obsolete parts resulted in a contract method change to award a sole source contract to the Original Equipment Manufacturer, ACES Systems. The test set is proprietary to ACES Systems who is the only source capable of implementing the required changes.

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0705 / Common Ground Equipment | **Aggregated Items:** A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.1) Weapons Control - Cralts Replacement (CAATS)																															
Prior Years Deliveries: 108																															
	1	2017	NAVY	47	0	47																								A -	47
	1	2018	NAVY	37	0	37																									37
	1	2019	NAVY	26	0	26																									26
1.2) Vibration - Vibration Analyzer (1)																															
Prior Years Deliveries: 8																															
	2	2018	NAVY	100	0	100																									100
	2	2019	NAVY	100	0	100																									100
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement																															
	3	2019	NAVY	5	0	5																									5
1.5) S/W Loader - Next Generation Software Loader																															
Prior Years Deliveries: 413																															
	4	2017	NAVY	120	0	120															A -	-	-	-	-	-	-	-	-	-	120
	4	2018	NAVY	116	0	116																									116
	4	2019	NAVY	40	0	40																									40
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks																															
	5	2019	NAVY	7	0	7																									7
	5	2020	NAVY	16	0	16																									16
1.7) Hydraulics - Hydraulic Test Stand I Level																															
Prior Years Deliveries: 26																															
	6	2016	NAVY	22	0	22			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22
	6	2017	NAVY	14	0	14														A -	-	-	-	-	-	-	-	-	-	-	14
	6	2018	NAVY	12	0	12																									12
1.8) Hydraulics - Particle Counter																															
	7	2019	NAVY	10	0	10																									10
1.9) Propulsion - V35 Dynamometer Replacement																															
	8	2020	NAVY	1	0	1																									1
1.10) Platform Support - Air Conditioner Ship Shore																															
Prior Years Deliveries: 8																															
	10	2015	NAVY	94	0	94																					A -	-	-	-	94
	9	2016	NAVY	55	0	55																					A -	-	-	-	55
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1

P-1 Line Item Number / Title: 0705 / Common Ground Equipment

Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	9	2017	NAVY	74	0	74																					A -	-	-	-	74
	9	2018	NAVY	20	0	20																									20
1.11) Platform Support - SD2 Replacement (2)																															
	11	2018	NAVY	5	0	5																									5
	11	2020	NAVY	60	0	60																									60
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)																															
	12	2020	NAVY	5	0	5																									5
1.14) Platform Support - Diesel & Electric Servicing Platform																															
	13	2020	NAVY	6	0	6																									6
1.16) Electrical - Large Capacity MEPP																															
Prior Years Deliveries: 116																															
	14	2015	NAVY	112	0	112						A -	-	-	-	-	-	-	-	-	-	-	-	-	9	15	15	15	15	15	28
	14	2016	NAVY	105	0	105						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105
	14	2017	NAVY	62	0	62																A -	-	-	-	-	-	-	-	-	62
1.17) Electrical - Small Capacity MEPP (Shipboard)																															
Prior Years Deliveries: 5																															
	15	2018	NAVY	33	0	33																									33
	15	2019	NAVY	35	0	35																									35
1.18) Electrical - Medium Capacity MEPP																															
	16	2020	NAVY	4	0	4																									4
1.19) Electrical - AECTS Replacement/Modification																															
	17	2019	NAVY	5	0	5																									5
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0705 / Common Ground Equipment | **Aggregated Items:** A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018															Calendar Year 2019									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.1) Weapons Control - Cralts Replacement (CAATS)																															
Prior Years Deliveries: 108																															
	1	2017	NAVY	47	0	47	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	7	7	7	7	7	7	2	0
	1	2018	NAVY	37	0	37		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	32
	1	2019	NAVY	26	0	26														A -	-	-	-	-	-	-	-	-	-	-	26
1.2) Vibration - Vibration Analyzer (1)																															
Prior Years Deliveries: 8																															
	2	2018	NAVY	100	0	100																			A -	-	-	-	10	10	80
	2	2019	NAVY	100	0	100																							A -	-	100
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement																															
	3	2019	NAVY	5	0	5																						A -	-	-	5
1.5) S/W Loader - Next Generation Software Loader																															
Prior Years Deliveries: 413																															
	4	2017	NAVY	120	0	120	-	-	10	10	10	10	10	10	10	10	10	10	10	10											0
	4	2018	NAVY	116	0	116	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	16
	4	2019	NAVY	40	0	40													A -	-	-	-	-	-	-	-	-	-	-	-	40
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks																															
	5	2019	NAVY	7	0	7																						A -	-	-	7
	5	2020	NAVY	16	0	16																									16
1.7) Hydraulics - Hydraulic Test Stand I Level																															
Prior Years Deliveries: 26																															
	6	2016	NAVY	22	0	22	2	2	2	2	2	2	2	2	2	2	2														0
	6	2017	NAVY	14	0	14	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2							0
	6	2018	NAVY	12	0	12	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	0
1.8) Hydraulics - Particle Counter																															
	7	2019	NAVY	10	0	10																						A -	-	-	10
1.9) Propulsion - V35 Dynamometer Replacement																															
	8	2020	NAVY	1	0	1																									1
1.10) Platform Support - Air Conditioner Ship Shore																															
Prior Years Deliveries: 8																															
	10	2015	NAVY	94	0	94	-	-	-	-	-	-	-	-	7	7	7	7	7	7	10	10	10	10	10	2					0
	9	2016	NAVY	55	0	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	10	10	10	10	7
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1

P-1 Line Item Number / Title: 0705 / Common Ground Equipment

Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	9	2017	NAVY	74	0	74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74
	9	2018	NAVY	20	0	20																	A -	-	-	-	-	-	-	-	20
1.11) Platform Support - SD2 Replacement (2)																															
	11	2018	NAVY	5	0	5			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2							0
	11	2020	NAVY	60	0	60																									60
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)																															
	12	2020	NAVY	5	0	5																									5
1.14) Platform Support - Diesel & Electric Servicing Platform																															
	13	2020	NAVY	6	0	6																									6
1.16) Electrical - Large Capacity MEPP																															
Prior Years Deliveries: 116																															
	14	2015	NAVY	112	84	28	15	13																							0
	14	2016	NAVY	105	0	105	-	2	15	15	15	15	15	15	13																0
	14	2017	NAVY	62	0	62	-	-	-	-	-	-	-	-	2	15	15	15	15												0
1.17) Electrical - Small Capacity MEPP (Shipboard)																															
Prior Years Deliveries: 5																															
	15	2018	NAVY	33	0	33								A -	-	-	-	-	-	5	5	5	5	5	5	3					0
	15	2019	NAVY	35	0	35															A -	-	-	-	-	2	5	5	5	5	13
1.18) Electrical - Medium Capacity MEPP																															
	16	2020	NAVY	4	0	4																									4
1.19) Electrical - AECTS Replacement/Modification																															
	17	2019	NAVY	5	0	5																						A -	-	-	5
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0705 / Common Ground Equipment | **Aggregated Items:** A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.1) Weapons Control - Cralts Replacement (CAATS)																															
Prior Years Deliveries: 108																															
	1	2017	NAVY	47	47	0																									0
	1	2018	NAVY	37	5	32	7	7	7	7	4																				0
	1	2019	NAVY	26	0	26	-	-	-	-	3	7	7	7	2																0
1.2) Vibration - Vibration Analyzer (1)																															
Prior Years Deliveries: 8																															
	2	2018	NAVY	100	20	80	10	10	10	10	10	10	10	10																	0
	2	2019	NAVY	100	0	100	-	-	10	10	10	10	10	10	10	10	10	10													0
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement																															
	3	2019	NAVY	5	0	5	-	-	-	1	1	1	1	1																	0
1.5) S/W Loader - Next Generation Software Loader																															
Prior Years Deliveries: 413																															
	4	2017	NAVY	120	120	0																									0
	4	2018	NAVY	116	100	16	10	6																							0
	4	2019	NAVY	40	0	40	-	4	10	10	10	6																			0
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks																															
	5	2019	NAVY	7	0	7	-	-	-	-	-	-	2	2	2	1															0
	5	2020	NAVY	16	0	16						A -	-	-	-	-	-	1	2	2	2	2	2	2	2	1					0
1.7) Hydraulics - Hydraulic Test Stand I Level																															
Prior Years Deliveries: 26																															
	6	2016	NAVY	22	22	0																									0
	6	2017	NAVY	14	14	0																									0
	6	2018	NAVY	12	12	0																									0
1.8) Hydraulics - Particle Counter																															
	7	2019	NAVY	10	0	10	-	-	-	-	-	-	10																		0
1.9) Propulsion - V35 Dynamometer Replacement																															
	8	2020	NAVY	1	0	1						A -	-	-	-	-	-	-	-	-	-	-	1								0
1.10) Platform Support - Air Conditioner Ship Shore																															
Prior Years Deliveries: 8																															
	10	2015	NAVY	94	94	0																									0
	9	2016	NAVY	55	48	7	7																								0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1

P-1 Line Item Number / Title: 0705 / Common Ground Equipment

Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
							Calendar Year 2020												Calendar Year 2021												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	9	2017	NAVY	74	0	74	3	10	10	10	10	10	10	10	1																0
	9	2018	NAVY	20	0	20	-	-	-	-	-	-	-	-	-	-	-	-	-	9	10	1									0
1.11) Platform Support - SD2 Replacement (2)																															
	11	2018	NAVY	5	5	0																									0
	11	2020	NAVY	60	0	60									A -	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	35
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)																															
	12	2020	NAVY	5	0	5						A -	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1				0
1.14) Platform Support - Diesel & Electric Servicing Platform																															
	13	2020	NAVY	6	0	6						A -	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1			0
1.16) Electrical - Large Capacity MEPP																															
Prior Years Deliveries: 116																															
	14	2015	NAVY	112	112	0																									0
	14	2016	NAVY	105	105	0																									0
	14	2017	NAVY	62	62	0																									0
1.17) Electrical - Small Capacity MEPP (Shipboard)																															
Prior Years Deliveries: 5																															
	15	2018	NAVY	33	33	0																									0
	15	2019	NAVY	35	22	13	5	5	3																						0
1.18) Electrical - Medium Capacity MEPP																															
	16	2020	NAVY	4	0	4						A -	-	-	-	-	-	-	-	-	-	-	1	1	1	1					0
1.19) Electrical - AECTS Replacement/Modification																															
	17	2019	NAVY	5	0	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1				0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.1) Weapons Control - Cralts Replacement (CAATS)																															
Prior Years Deliveries: 108																															
	1	2017	NAVY	47	47	0																									0
	1	2018	NAVY	37	37	0																									0
	1	2019	NAVY	26	26	0																									0
1.2) Vibration - Vibration Analyzer (1)																															
Prior Years Deliveries: 8																															
	2	2018	NAVY	100	100	0																									0
	2	2019	NAVY	100	100	0																									0
1.4) COMM/NAV I/D - AN/APM-455 RBTS Replacement																															
	3	2019	NAVY	5	5	0																									0
1.5) S/W Loader - Next Generation Software Loader																															
Prior Years Deliveries: 413																															
	4	2017	NAVY	120	120	0																									0
	4	2018	NAVY	116	116	0																									0
	4	2019	NAVY	40	40	0																									0
1.6) Cryogenics - Shore 1000/2000 Gallon Lox Tanks																															
	5	2019	NAVY	7	7	0																									0
	5	2020	NAVY	16	16	0																									0
1.7) Hydraulics - Hydraulic Test Stand I Level																															
Prior Years Deliveries: 26																															
	6	2016	NAVY	22	22	0																									0
	6	2017	NAVY	14	14	0																									0
	6	2018	NAVY	12	12	0																									0
1.8) Hydraulics - Particle Counter																															
	7	2019	NAVY	10	10	0																									0
1.9) Propulsion - V35 Dynamometer Replacement																															
	8	2020	NAVY	1	1	0																									0
1.10) Platform Support - Air Conditioner Ship Shore																															
Prior Years Deliveries: 8																															
	10	2015	NAVY	94	94	0																									0
	9	2016	NAVY	55	55	0																									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0705 / Common Ground Equipment | **Aggregated Items:** A/C COMMON SUPPORT EQUIPMENT

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
	9	2017	NAVY	74	74	0																									0
	9	2018	NAVY	20	20	0																									0
1.11) Platform Support - SD2 Replacement (2)																															
	11	2018	NAVY	5	5	0																									0
	11	2020	NAVY	60	25	35	5	5	5	5	5	5	5																		0
1.13) Platform Support - 1500lb Utility Maintenance Crane (3)																															
	12	2020	NAVY	5	5	0																									0
1.14) Platform Support - Diesel & Electric Servicing Platform																															
	13	2020	NAVY	6	6	0																									0
1.16) Electrical - Large Capacity MEPP																															
Prior Years Deliveries: 116																															
	14	2015	NAVY	112	112	0																									0
	14	2016	NAVY	105	105	0																									0
	14	2017	NAVY	62	62	0																									0
1.17) Electrical - Small Capacity MEPP (Shipboard)																															
Prior Years Deliveries: 5																															
	15	2018	NAVY	33	33	0																									0
	15	2019	NAVY	35	35	0																									0
1.18) Electrical - Medium Capacity MEPP																															
	16	2020	NAVY	4	4	0																									0
1.19) Electrical - AECTS Replacement/Modification																															
	17	2019	NAVY	5	5	0																									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** A/C COMMON SUPPORT EQUIPMENT

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2020	1-8-5 For 2020	MAX For 2020	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BEHLMAN ELECTRONICS INC - HAUPPAUGE NY	2	84	168	0	2	7	9	0	0	0	0
2	ACES SYSTEMS - KNOXVILLE TN	1	96	192	0	9	4	13	0	3	3	6
3	TBD - TBD	1	25	58	0	1	6	7	0	1	5	6
4	NSWC CRANE - IN	2	116	120	0	4	6	10	0	0	0	0
5	TBD - TBD	1	5	17	0	5	9	14	1	5	6	11
6	Hydraulics International Inc. (1) - CHATSWORTH CA	1	24	48	0	11	11	22	0	5	6	11
7	TBD - TBD	1	10	180	0	5	9	14	1	5	10	15
8	Concepts ETI Inc. - White River Junction, VT	1	1	2	0	11	11	22	0	0	0	0
9	DRS TECHOLOGIES (1) - FLORENCE, KY	2	120	240	0	4	6	10	0	4	19	23
10	DRS TECHOLOGIES (2) - FLORENCE, KY	2	120	240	0	3	12	15	0	0	0	0
11	Hydraulics International Inc. (1) - CHATSWORTH CA	1	5	60	0	1	14	15	0	4	11	15
12	TBD - TBD		1	63	0	1	11	12	0	0	0	0
13	TBD - TBD		1	47	0	1	11	12	0	0	0	0
14	Essex Electro Engineers, Inc - Schaumburg, IL	3	180	360	0	1	5	6	0	1	2	3
15	JBT CORP - OGDEN, UT	1	60	120	0	1	6	7	0	1	5	6
16	TBD - TBD	1	1	80	0	1	11	12	0	0	0	0
17	TBD - TBD	1	5	11	0	3	19	22	0	3	17	20

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items Title:** ICP/HEADQUARTERS MANAGED SUPPORT EQUIPMENT

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) CSE Initial Outfitting	A		-	-	29.241	-	-	3.414	-	-	2.201	-	-	2.259	-	-	-	-	-	2.259
1.2) PSE Initial Outfitting	A		-	-	51.339	-	-	7.242	-	-	8.651	-	-	7.542	-	-	-	-	-	7.542
1.3) New Support Equipment	A		-	-	72.559	-	-	11.947	-	-	11.356	-	-	9.613	-	-	-	-	-	9.613
Subtotal: 1) Hardware			**-**	**-**	***153.139***	**-**	**-**	***22.603***	**-**	**-**	***22.208***	**-**	**-**	***19.414***	**-**	**-**	**-**	**-**	**-**	***19.414***
2) Production Engineering																				
2.1) CSE Initial Outfitting	A		-	-	1.622	-	-	0.248	-	-	0.253	-	-	0.254	-	-	-	-	-	0.254
2.2) PSE Initial Outfitting	A		-	-	10.214	-	-	0.819	-	-	0.835	-	-	0.840	-	-	-	-	-	0.840
2.3) New Support Equipment	A		-	-	27.542	-	-	4.288	-	-	4.381	-	-	4.355	-	-	-	-	-	4.355
Subtotal: 2) Production Engineering			**-**	**-**	***39.378***	**-**	**-**	***5.355***	**-**	**-**	***5.469***	**-**	**-**	***5.449***	**-**	**-**	**-**	**-**	**-**	***5.449***
3) OCO																				
3.1) Individual Material Readiness List (IMRL) OCO	A		-	-	10.655	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) OCO			**-**	**-**	***10.655***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
4) COMFRC RBA Recovery																				
4.1) COMFRC CSE Investment	A		-	-	-	-	-	-	-	-	25.000	-	-	-	-	-	-	-	-	-
Subtotal: 4) COMFRC RBA Recovery			**-**	**-**	***0.000***	**-**	**-**	**-**	**-**	**-**	***25.000***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**203.172**	**-**	**-**	**27.958**	**-**	**-**	**52.677**	**-**	**-**	**24.863**	**-**	**-**	**-**	**-**	**-**	**24.863**

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items Title:** CONSOLIDATED AUTOMATED SUPPORT SYSTEM

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) RT CASS	A		1,740K	149	259.280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) eCASS (8)(†)	B		2,554K	127	324.394	2,483K	26	64.558	2,748K	27	74.191	2,581K	28	72.268	-	-	-	2,581K	28	72.268
Subtotal: 1) Hardware			**-**	**-**	***583.674***	**-**	**-**	***64.558***	**-**	**-**	***74.191***	**-**	**-**	***72.268***	**-**	**-**	**-**	**-**	**-**	***72.268***
2) ECP																				
2.1) RT CASS	A		-	-	108.352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) eCASS	B		-	-	1.749	-	-	1.773	-	-	1.068	-	-	0.023	-	-	-	-	-	0.023
Subtotal: 2) ECP			**-**	**-**	***110.101***	**-**	**-**	***1.773***	**-**	**-**	***1.068***	**-**	**-**	***0.023***	**-**	**-**	**-**	**-**	**-**	***0.023***
3) ILS																				
3.1) RT CASS	A		-	-	44.920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2) eCASS	B		-	-	31.411	-	-	4.864	-	-	3.651	-	-	4.420	-	-	-	-	-	4.420
Subtotal: 3) ILS			**-**	**-**	***76.331***	**-**	**-**	***4.864***	**-**	**-**	***3.651***	**-**	**-**	***4.420***	**-**	**-**	**-**	**-**	**-**	***4.420***
4) Production Engineering																				
4.1) RT CASS	A		-	-	93.745	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2) eCASS	B		-	-	27.452	-	-	3.737	-	-	3.874	-	-	3.256	-	-	-	-	-	3.256
Subtotal: 4) Production Engineering			**-**	**-**	***121.197***	**-**	**-**	***3.737***	**-**	**-**	***3.874***	**-**	**-**	***3.256***	**-**	**-**	**-**	**-**	**-**	***3.256***
5) Non FMP Installations																				
5.1) RT CASS	A		-	-	29.076	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2) eCASS	B		-	-	8.113	-	-	3.349	-	-	2.341	-	-	3.126	-	-	-	-	-	3.126
Subtotal: 5) Non FMP Installations			**-**	**-**	***37.189***	**-**	**-**	***3.349***	**-**	**-**	***2.341***	**-**	**-**	***3.126***	**-**	**-**	**-**	**-**	**-**	***3.126***
6) FMP Installations																				
6.1) RT CASS	A		-	-	31.275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2) eCASS	B		-	-	1.411	-	-	1.951	-	-	1.240	-	-	2.861	-	-	-	-	-	2.861
Subtotal: 6) FMP Installations			**-**	**-**	***32.686***	**-**	**-**	***1.951***	**-**	**-**	***1.240***	**-**	**-**	***2.861***	**-**	**-**	**-**	**-**	**-**	***2.861***
Total			**-**	**-**	**961.178**	**-**	**-**	**80.232**	**-**	**-**	**86.365**	**-**	**-**	**85.954**	**-**	**-**	**-**	**-**	**-**	**85.954**

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

(†) indicates the presence of a P-5a

Footnotes:

(8) There are four (4) different configurations of eCASS with the RF configuration being the costliest. In FY19 the total quantity of eCASS stations consists of a higher number of RF stations which led to higher unit cost.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: CONSOLIDATED AUTOMATED SUPPORT SYSTEM

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Hardware												
1.2) eCASS (8)(†)		2016	Lockheed Martin (FRP 1) / Orlando, FL	SS / FFP	NAWCAD LKE	Feb 2017	Mar 2018	35	2,567K	Y		May 2016
1.2) eCASS (8)(†)		2017	Lockheed Martin (FRP 1) / Orlando, FL	SS / FFP	NAWCAD LKE	Feb 2017	Dec 2018	28	2,618K	Y		May 2016
1.2) eCASS (8)(†)		2018	Lockheed Martin (FRP 2) / Orlando, FL	C / FFP	NAWCAD LKE	Jul 2018	Jan 2020	26	2,483K	Y		Apr 2017
1.2) eCASS (8)(†)		2019	Lockheed Martin (FRP 2) / Orlando, FL	C / FFP	NAWCAD LKE	Dec 2018	Jun 2020	27	2,748K	Y		Apr 2017
1.2) eCASS (8)(†)		2020	Lockheed Martin (FRP 3) / Orlando, FL	C / FFP	NAWCAD LKE	Mar 2020	Sep 2021	28	2,581K	Y		Apr 2019

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** CONSOLIDATED AUTOMATED SUPPORT SYSTEM

Items (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017												Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.2) eCASS [8]																															
Prior Years Deliveries: 64																															
	18	2016	NAVY	35	0	35					A -	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	7
	18	2017	NAVY	28	0	28					A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28
	19	2018	NAVY	26	0	26																						A -	-	-	26
	19	2019	NAVY	27	0	27																									27
	20	2020	NAVY	28	0	28																									28
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1

P-1 Line Item Number / Title: 0705 / Common Ground Equipment

Aggregated Items: CONSOLIDATED AUTOMATED SUPPORT SYSTEM

Items (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
										Calendar Year 2019												Calendar Year 2020									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.2) eCASS (8)																															
Prior Years Deliveries: 64																															
	18	2016	NAVY	35	28	7	4	3																							0
	18	2017	NAVY	28	0	28	-	-	2	3	2	3	2	3	2	3	2	2	2	2											0
	19	2018	NAVY	26	0	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3	3	3	3	3	0
	19	2019	NAVY	27	0	27			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	2	18
	20	2020	NAVY	28	0	28																		A -	-	-	-	-	-	-	28
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** CONSOLIDATED AUTOMATED SUPPORT SYSTEM

Items (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.2) eCASS [8]																															
Prior Years Deliveries: 64																															
	18	2016	NAVY	35	35	0																									0
	18	2017	NAVY	28	28	0																									0
	19	2018	NAVY	26	26	0																									0
	19	2019	NAVY	27	9	18	3	2	2	3	2	2	2	2																	0
	20	2020	NAVY	28	0	28	-	-	-	-	-	-	-	-	-	-	-	2	3	2	2	3	2	2	3	2	2	3	2		0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** CONSOLIDATED AUTOMATED SUPPORT SYSTEM

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2020	1-8-5 For 2020	MAX For 2020	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin (FRP 1) - Orlando, FL	24	36	48	0	3	13	16	0	9	18	27
2	Lockheed Martin (FRP 2) - Orlando, FL	24	36	48	0	9	16	25	0	9	18	27
3	Lockheed Martin (FRP 3) - Orlando, FL	24	36	48	0	9	16	25	0	9	18	27

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: MOBILE MAINTENANCE FACILITIES

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) HARDWARE																				
1.1) Mobile Facility Vans(†)	A		104,723.40	376	39.376	61,581.00	55	3.387	61,200.00	55	3.366	61,500.00	55	3.383	-	-	-	61,500.00	55	3.383
1.2) Complex Decomplex Tool	A		-	-	0.702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) Environmental Control Units(†)	A		7,487.22	587	4.395	5,113.64	44	0.225	5,125.00	40	0.205	5,175.00	40	0.207	-	-	-	5,175.00	40	0.207
1.4) Frequency Converters	A		-	-	0.520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) Static Mobile Frequency Converters	A		125,000.00	17	2.125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6) Tactical Quite Generator	A		-	-	28.473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) HARDWARE			**-**	**-**	***75.591***	**-**	**-**	***3.612***	**-**	**-**	***3.571***	**-**	**-**	***3.590***	**-**	**-**	**-**	**-**	**-**	***3.590***
2) ILS																				
2.1) Non-FMP Installations	A		-	-	19.895	-	-	1.275	-	-	1.284	-	-	1.317	-	-	-	-	-	1.317
Subtotal: 2) ILS			**-**	**-**	***19.895***	**-**	**-**	***1.275***	**-**	**-**	***1.284***	**-**	**-**	***1.317***	**-**	**-**	**-**	**-**	**-**	***1.317***
3) Production Engineering																				
3.1) Mobile Facility Vans	A		-	-	31.752	-	-	1.931	-	-	1.986	-	-	2.040	-	-	-	-	-	2.040
Subtotal: 3) Production Engineering			**-**	**-**	***31.752***	**-**	**-**	***1.931***	**-**	**-**	***1.986***	**-**	**-**	***2.040***	**-**	**-**	**-**	**-**	**-**	***2.040***
4) Miscellaneous Support																				
4.1) Publications	A		-	-	2.072	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) Miscellaneous Support			**-**	**-**	***2.072***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**129.310**	**-**	**-**	**6.818**	**-**	**-**	**6.841**	**-**	**-**	**6.947**	**-**	**-**	**-**	**-**	**-**	**6.947**

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

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: MOBILE MAINTENANCE FACILITIES

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) HARDWARE												
1.1) Mobile Facility Vans		2018	Gichner Shelter / Dallastown, PA	C / IDDQ	NAWCAD LKE	Oct 2017	Apr 2018	55	61,581.00	Y		May 2012
1.1) Mobile Facility Vans		2019	Gichner Shelter / Dallastown, PA	C / IDDQ	NAWCAD LKE	Oct 2018	Apr 2019	55	61,200.00	Y		May 2012
1.1) Mobile Facility Vans		2020	Gichner Shelter / Dallastown, PA	C / IDDQ	NAWCAD LKE	Oct 2019	Apr 2020	55	61,500.00	Y		Jun 2018
1.3) Environmental Control Units		2018	Env. Sys. / Jacksonville, FL	C / FFP	NAWCAD LKE	Nov 2017	Apr 2018	44	5,113.64	Y		Nov 2011
1.3) Environmental Control Units		2019	Env. Sys. / Jacksonville, FL	C / FFP	NAWCAD LKE	Oct 2018	Mar 2019	40	5,125.00	Y		Nov 2011
1.3) Environmental Control Units		2020	Env. Sys. / Jacksonville, FL	C / FFP	NAWCAD LKE	Oct 2019	Mar 2020	40	5,175.00	Y		Jun 2017

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) A School - Catapult Launch Trainer(†)	A		1,125K	1	1.125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) A School - AME Environmental Control Systems (ECS) Trainers (9)	A		-	-	0.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) A School - AE Electronic Classroom (ECR) Upgrades	A		-	-	0.442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) A School - ATO/ATI Electronic Classroom (ECR) Upgrades	A		1,224K	1	1.224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) A School - ATO/ ATI/ AE Electronic Classroom Tech Refresh	A		-	-	1.103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6) A School - AE Curriculum/ PC Simulation Upgrades(†)	A		2,580K	1	2.580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.7) A School - Mobile Electric Power Plant (MEPP) Trainer	A		-	-	0.650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.8) ACTS - Expeditionary Laptop Upgrades(†)	A		-	-	0.560	-	-	-	2,780.00	50	0.139	2,780.00	50	0.139	-	-	-	2,780.00	50	0.139
1.9) ACTS - MS Windows Server Standard Licenses(†)	A		-	-	-	7,000.00	10	0.070	-	-	-	-	-	-	-	-	-	-	-	-
1.10) ACTS - MS SQL 2016 Standard Licenses(†)	A		-	-	-	16,500.00	4	0.066	-	-	-	-	-	-	-	-	-	-	-	-
1.11) ACTS - Rustici Software Upgrade	A		-	-	0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.12) ACTS - MS Window 10 Enterprise Licenses	A		-	-	0.039	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.13) ACTS - CONUS/ CVN Server Upgrades	A		-	-	0.045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.14) ATC - 15G34 Tower Simulation System (TSS) Procurement	A		-	-	6.763	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.15) ATC - 15G30 Integrated Shipboard Information System (ISIS) HW Upgrades	A		-	-	0.207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.16) ATC - 15G30 Integrated Shipboard Information System (ISIS) SW Upgrades	A		-	-	0.163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.17) ATC - Air Traffic Nav, Integ & Coordination Sys (ATNAVICS) Blk Upg	A		-	-	0.683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.18) ATC - 15G31 SATS Radar Labs 2&3 w/ VIDS Upgrades(†)	A		1,784K	2	3.568	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.19) ATC - STARS in ARATC 15G31 Upgrades (10)(†)	A		-	-	-	151,250.00	8	1.210	-	-	-	-	-	-	-	-	-	-	-	-
1.20) ATC - 15G33A Improved Precision Approach Trainer (IPART) Upgrades(†)	A		22,641.51	53	1.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.21) ATC - 15G30 Joint Precision Approach & Landing System (JPALS) Upgrades(†)	A		-	-	-	-	-	-	2,574K	2	5.147	-	-	-	-	-	-	-	-	-
1.22) ATC - Courseware(†)	A		-	-	-	2,137K	1	2.137	-	-	-	-	-	-	-	-	-	-	-	-
1.24) ATC - 15G34 Block Upgrades(†)	A		-	-	-	-	-	-	-	-	-	121,102.56	39	4.723	-	-	-	121,102.56	39	4.723
1.25) ATC - Tower Simulation System (TSS) 15G34 Voice Command Upgrade(†)	A		-	-	-	-	-	-	29,756.00	1	0.030	-	-	-	-	-	-	-	-	-
1.28) ATC - Terminal Instrument Procedures (TERPS) Laptops	A		2,500.00	12	0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.29) ATC - Naval Air Traffic Trng Center (NATTC) Static Lab Upgs(†)	A		-	-	-	650,000.00	1	0.650	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.30) NASTP - Normobaric Hypoxia Chambers (11)(†)	A		572,833.33	6	3.437	382,500.00	2	0.765	-	-	-	-	-	-	-	-	-	-	-	-
1.31) NASTP - Normobaric Hypoxia Chamber Upgrades (12)(†)	A		-	-	-	76,500.00	6	0.459	-	-	-	-	-	-	-	-	-	-	-	-
1.32) NASTP - Multi-Station Spatial Disorientation Demonstrator (MSDD)	A		-	-	0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.33) NASTP - Advanced Spatial Disorientation Curricula (ASD)	A		300,000.00	1	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.34) NASTP - Reduced Oxygen Breathing Device (ROBD) Units	A		-	-	0.587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.35) NASTP - Reduced Oxygen Breathing Device (ROBD) Transport Carts	A		-	-	0.022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.36) NASTP - Reduced Oxygen Breathing Device (ROBD) Accessories	A		-	-	0.157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.37) NASTP - Reduced Oxygen Breathing Device (Molecular Sieve)(†)	A		-	-	-	-	-	-	57,775.00	40	2.311	-	-	-	-	-	-	-	-	-
1.38) NASTP - Reduced Oxygen Breathing Device Win 10 Upgrade	A		138,000.00	1	0.138	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.39) NASTP - Dynamic Ejection Trainer Tech Refresh	A		-	-	0.412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.40) NASTP - Virtual Reality Parachute Descent Trainer (VRPDT) Win7 Upgrades	A		-	-	0.883	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.41) NASTP - 9H1 Helo Hoist Upgrades(†)	A		-	-	-	-	-	-	-	-	-	348,000.00	5	1.740	-	-	-	348,000.00	5	1.740

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.42) NASTP - Modular Egress Training System (METS) Upgrades(†)	A		-	-	-	40,000.00	1	0.040	-	-	-	-	-	-	-	-	-	-	-	-
1.44) NASTP - 9F2A & 9F2C Parachute in Water Motor Replacement(†)	A		-	-	-	91,000.00	7	0.637	-	-	-	-	-	-	-	-	-	-	-	-
1.45) NASTP - 9F9A Parachute Over Water Survival Trainer (POST)(†)	A		-	-	-	-	-	-	-	-	-	250,000.00	2	0.500	-	-	-	250,000.00	2	0.500
1.46) NASTP - Navy Imaging and Threat Eval Lab (NITE LAB) Trainer Upgrades(†)	A		-	-	-	47,521.74	23	1.093	-	-	-	-	-	-	-	-	-	-	-	-
1.47) LSO - Training System Upgrades	A		-	-	3.424	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.48) Common ASW - Interactive Multi-Sensors Analysis Trainer (IMAT) Upgrades(†)	A		3,425K	1	3.425	140,000.00	1	0.140	415,000.00	1	0.415	412,000.00	1	0.412	-	-	-	412,000.00	1	0.412
1.49) Common ASW - Inter Multi-Sensors Analysis Train (IMAT) Upg Phase II(†)	A		-	-	-	71,550.00	1	0.072	-	-	-	-	-	-	-	-	-	-	-	-
1.50) Common ASW - IMAT Java Applet Upgrade	A		185,000.00	1	0.185	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.51) Common ASW - Tactical Acoustic Intelligence (ACINT) Product Upgrades	A		-	-	0.368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Hardware			**-**	**-**	***33.906***	**-**	**-**	***7.339***	**-**	**-**	***8.042***	**-**	**-**	***7.514***	**-**	**-**	**-**	**-**	**-**	***7.514***
2) ILS																				
2.1) A School	A		-	-	0.140	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) ATC	A		-	-	0.750	-	-	0.158	-	-	0.124	-	-	0.158	-	-	-	-	-	0.158
2.3) NASTP	A		-	-	1.066	-	-	0.448	-	-	0.251	-	-	0.306	-	-	-	-	-	0.306
2.4) LSO	A		-	-	0.370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5) Common ASW	A		-	-	0.041	-	-	-	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: 2) ILS			**-**	**-**	***2.367***	**-**	**-**	***0.606***	**-**	**-**	***0.376***	**-**	**-**	***0.465***	**-**	**-**	**-**	**-**	**-**	***0.465***
3) Production Engineering																				
3.1) A School	A		-	-	0.580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
3.2) ACTS	A		-	-	0.061	-	-	0.003	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
3.3) ATC	A		-	-	1.485	-	-	0.288	-	-	0.410	-	-	0.233	-	-	-	-	-	0.233
3.4) NASTP	A		-	-	6.465	-	-	0.376	-	-	0.312	-	-	0.249	-	-	-	-	-	0.249
3.5) LSO	A		-	-	1.036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.6) Common ASW	A		-	-	1.784	-	-	0.300	-	-	0.091	-	-	0.093	-	-	-	-	-	0.093
Subtotal: 3) Production Engineering			**-**	**-**	***11.411***	**-**	**-**	***0.967***	**-**	**-**	***0.816***	**-**	**-**	***0.578***	**-**	**-**	**-**	**-**	**-**	***0.578***
4) Non Recurring																				
4.1) Common ASW	A		-	-	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) Non Recurring			**-**	**-**	***0.006***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
5) Acceptance Testing																				
5.1) A School	A		-	-	0.090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2) ACTS	A		-	-	0.040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.3) ATC	A		-	-	0.101	-	-	0.121	-	-	0.043	-	-	0.065	-	-	-	-	-	0.065
5.4) NASTP	A		-	-	0.379	-	-	-	-	-	0.157	-	-	0.168	-	-	-	-	-	0.168
5.5) LSO	A		-	-	0.034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6) Common ASW	A		-	-	0.103	-	-	-	-	-	0.001	-	-	0.001	-	-	-	-	-	0.001
Subtotal: 5) Acceptance Testing			**-**	**-**	***0.747***	**-**	**-**	***0.121***	**-**	**-**	***0.201***	**-**	**-**	***0.234***	**-**	**-**	**-**	**-**	**-**	***0.234***
6) Production Support																				
6.1) A School	A		-	-	0.448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2) ACTS	A		-	-	0.773	-	-	0.033	-	-	0.034	-	-	0.034	-	-	-	-	-	0.034
6.3) ATC	A		-	-	2.181	-	-	0.715	-	-	0.193	-	-	0.718	-	-	-	-	-	0.718
6.4) NASTP	A		-	-	1.881	-	-	0.490	-	-	0.629	-	-	0.560	-	-	-	-	-	0.560
6.5) LSO	A		-	-	0.608	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.6) Common ASW	A		-	-	0.182	-	-	0.151	-	-	0.169	-	-	0.172	-	-	-	-	-	0.172
Subtotal: 6) Production Support			**-**	**-**	***6.073***	**-**	**-**	***1.389***	**-**	**-**	***1.025***	**-**	**-**	***1.484***	**-**	**-**	**-**	**-**	**-**	***1.484***
Total			**-**	**-**	**54.510**	**-**	**-**	**10.422**	**-**	**-**	**10.460**	**-**	**-**	**10.275**	**-**	**-**	**-**	**-**	**-**	**10.275**

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

(†) indicates the presence of a P-5a

Footnotes:

(9) Applies to all Hardware Upgrades/Modernization efforts: Total quantity and cost of device Upgrades/Modernization may vary year to year. These Upgrades/Modernization efforts do not increase inventory since they are on existing devices (cost of Upgrading/Modernization of individual devices may vary due to various factors such as age, condition or current device capability) except for the following line items that do increase inventory quantities: 1.8, 1.28, 1.37, 1.45.

(10) ATC - Standard Terminal Automation Replacement System (STARS) in Advanced Radar Air Traffic Control (ARATC) Upgrades

(11) Name changed from Mixed Gas Hypoxia Chambers to Normobaric Hypoxia Chambers.

(12) Name changed from Mixed Gas Hypoxia Chamber Upgrades to Normabaric Hypoxia Chamber Upgrades

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Hardware												
1.1) A School - Catapult Launch Trainer		2015	NAWCTSD / Orlando, FL	PO	NAWCTSD	Jul 2017	Sep 2019	1	1,125K	Y		
1.6) A School - AE Curriculum/PC Simulation Upgrades		2016	Sonalysts Inc. / Waterford, CT	C / FFP	NAVSUP	May 2017	Mar 2019	1	1,346K	Y		Nov 2015
1.8) ACTS - Expeditionary Laptop Upgrades		2019	New Technology Solutions / Fremont, CA	C / FFP	NAWCTSD	Mar 2019	Jul 2019	50	2,780.00	Y		Jan 2019
1.8) ACTS - Expeditionary Laptop Upgrades		2020	New Technology Solutions / Fremont, CA	C / FFP	NAWCTSD	Mar 2020	Jul 2020	50	2,780.00	Y		Jan 2020
1.9) ACTS - MS Windows Server Standard Licenses		2018	Insight Public Sector / Tempe, AZ	C / FFP	NAWCTSD	Sep 2018	Oct 2018	10	7,000.00	Y		Aug 2018
1.10) ACTS - MS SQL 2016 Standard Licenses		2018	Insight Public Sector / Tempe, AZ	C / FFP	NAWTSD	Sep 2018	Oct 2018	4	16,500.00	Y		Aug 2018
1.18) ATC - 15G31 SATS Radar Labs 2&3 w/ VIDS Upgrades		2017	Symvionics, Inc / Arcadia, CA	C / FFP	NAWCTSD	Apr 2017	Sep 2019	2	1,784K	Y		Nov 2016
1.19) ATC - STARS in ARATC 15G31 Upgrades (10)		2018	NAWCTSD / Orlando, FL	PO	NAWCTSD	Jul 2018	Sep 2019	8	151,250.00	Y		
1.20) ATC - 15G33A Improved Precision Approach Trainer (IPART) Upgrades		2017	NAWCTSD / Orlando, FL	PO	NAWCTSD	Jan 2017	Jan 2018	53	22,641.51	Y		
1.21) ATC - 15G30 Joint Precision Approach & Landing System (JPALS) Upgrades		2019	TBD / TBD	C / FFP	NAWCTSD	Jun 2019	Oct 2020	2	2,574K	Y		Nov 2018
1.22) ATC - Courseware		2018	Carley Group / Orlando, FL	C / FFP	NAWCTSD	Mar 2018	Mar 2020	1	2,137K	Y		Jul 2017
1.24) ATC - 15G34 Block Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Feb 2021	39	121,102.56	N	Sep 2019	Oct 2019
1.25) ATC - Tower Simulation System (TSS) 15G34 Voice Command Upgrade		2019	TBD / TBD	C / CPFF	NAWCTSD	Jan 2019	Jan 2020	1	29,756.00	Y		Nov 2018
1.29) ATC - Naval Air Traffic Trng Center (NATTC) Static Lab Upgs		2018	Bowhead / Orlando, FL	C / FFP	NAWCTSD	Aug 2018	Feb 2019	1	650,000.00	Y		Jul 2018
1.30) NASTP - Normobaric Hypoxia Chambers (11)		2015	NAWCTSD / Orlando, FL	PO	NAWCTSD	Dec 2016	Oct 2019	5	478,833.33	Y		
1.30) NASTP - Normobaric Hypoxia Chambers (11)		2016	NAWCTSD / Orlando, FL	PO	NAWCTSD	Dec 2016	Dec 2019	1	564,000.00	Y		
1.30) NASTP - Normobaric Hypoxia Chambers (11)		2018	NAWCTSD* / Orlando, FL	PO	NAWCTSD	Dec 2018	Jan 2020	2	382,500.00	Y		
1.31) NASTP - Normobaric Hypoxia Chamber Upgrades (12)		2018	TBD / TBD	C / FFP	NAVFAC	Feb 2019	Feb 2019	6	76,500.00	Y		Aug 2018

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: GENERAL SKILLS TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.37) NASTP - Reduced Oxygen Breathing Device (Molecular Sieve)		2019	Lynntech Inc. / College Station, TX	SS / FFP	NAWCTSD	Mar 2019	Sep 2020	40	57,775.00	N	Sep 2018	Oct 2018
1.41) NASTP - 9H1 Helo Hoist Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Sep 2021	5	348,000.00	N	Oct 2019	Oct 2019
1.42) NASTP - Modular Egress Training System (METS) Upgrades		2018	NAWCTSD / Orlando, FL	PO	NAWCTSD	Jul 2018	Sep 2019	1	40,000.00	Y		
1.44) NASTP - 9F2A & 9F2C Parachute in Water Motor Replacement		2018	NAWCTSD / Orlando, FL	PO	NAWCTSD	Jan 2018	Dec 2018	7	91,000.00	Y		
1.45) NASTP - 9F9A Parachute Over Water Survival Trainer (POST)		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Sep 2021	2	250,000.00	N	Sep 2019	Oct 2019
1.46) NASTP - Navy Imaging and Threat Eval Lab (NITE LAB) Trainer Upgrades		2018	NAWCTSD / Orlando, FL	PO	NAWCTSD	Aug 2018	Feb 2020	23	47,521.74	Y		
1.48) Common ASW - Interactive Multi-Sensors Analysis Trainer (IMAT) Upgrades		2018	General Dynamics IT Division / Fairfax, VA	C / CPFF	NSWC Carderock	Mar 2018	Aug 2018	1	140,000.00	Y		May 2012
1.48) Common ASW - Interactive Multi-Sensors Analysis Trainer (IMAT) Upgrades		2019	General Dynamics IT Division / Fairfax, VA	C / CPFF	NSWC Carderock	Oct 2018	Oct 2019	1	415,000.00	Y		May 2012
1.48) Common ASW - Interactive Multi-Sensors Analysis Trainer (IMAT) Upgrades		2020	General Dynamics IT Division / Fairfax, VA	C / CPFF	NSWC Carderock	Oct 2019	Oct 2020	1	412,000.00	Y		May 2012
1.49) Common ASW - Inter Multi-Sensors Analysis Train (IMAT) Upg Phase II		2018	General Dynamics IT Division / Fairfax, VA	C / FFP	NSWC Carderock	Jul 2018	Jun 2019	1	71,550.00	Y		May 2012

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items Title:** TOPSCENE

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Mission Rehearsal Pre-Planned (Topscene)																				
1.1) Product Improvement(†)	A		1,250K	6	7.503	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Mission Rehearsal Pre-Planned (Topscene)			**-**	**-**	***7.503***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
2) ILS																				
2.1) Topscene	A		-	-	1.275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) ILS			**-**	**-**	***1.275***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
3) Acceptance Testing																				
3.1) Topscene	A		-	-	1.845	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) Acceptance Testing			**-**	**-**	***1.845***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**10.623**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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

(†) indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: TOPSCENE

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Mission Rehearsal Pre-Planned (Topscene)												
1.1) Product Improvement(†)		2015	LOCKHEED MARTIN / Dallas, TX	SS / FFP	Navair	Sep 2015	Dec 2016	1	863,000.00	Y		Nov 2014
1.1) Product Improvement(†)		2016	LOCKHEED MARTIN / Dallas, TX	SS / FFP	Navair	Mar 2016	Jun 2017	1	1,589K	Y		Nov 2014

(†) indicates the presence of a P-21

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** TOPSCENE

Items (Units in Each)							Fiscal Year 2015												Fiscal Year 2016												BALANCE
										Calendar Year 2015												Calendar Year 2016									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Mission Rehearsal Pre-Planned (Topscene)																															
1.1) Product Improvement																															
Prior Years Deliveries: 4																															
	21	2015	NAVY	1	0	1												A -	-	-	-	-	-	-	-	-	-	-	-	-	1
	21	2016	NAVY	1	0	1																		A -	-	-	-	-	-	-	1
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** TOPSCENE

Items (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017												Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Mission Rehearsal Pre-Planned (Topscene)																															
1.1) Product Improvement																															
Prior Years Deliveries: 4																															
	21	2015	NAVY	1	0	1	-	-	1																						0
	21	2016	NAVY	1	0	1	-	-	-	-	-	-	-	-	1																0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** TOPSCENE

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2020	1-8-5 For 2020	MAX For 2020	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	LOCKHEED MARTIN - Dallas, TX			TBD	0	0	0	0	0	0	15	15

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

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Hardware																				
1.1) CNATRA - T-45 Operational Flight Trainer (OFT) Upgrades (13)(†)	A		8,133K	2	16.266	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) CNATRA - TH-57 Projectors	A		-	-	1.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) CNATRA - TH-57 Instructor Operator Station Upgrade	A		-	-	0.007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) CNATRA - T-6 Win 10 Upgrades(†)	A		12,330K	1	12.330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) CNATRA - T-6 IOS Joystick & Throttle Mod Upgrades	A		-	-	0.011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6) CNATRA- T-45 Win 10 Image Gen Sys Servers Upgrades	A		-	-	2.533	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.7) CNATRA - T-45 Win 10 Instructor Operator Station Computer Upgrades	A		-	-	0.441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.8) CNATRA - T-45 Win 10 Aural Cues Computers Upgrades	A		123,000.00	1	0.123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.9) CNATRA - T-45 UMFO - Win 10 ViTech Driver	A		-	-	0.028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.10) CNATRA - T-45 Win 10 Virtual IO SW Upgrades	A		-	-	0.146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.11) E-6 - Interactive Avionic Trainer Rehost	A		-	-	5.368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.12) E-6 - Interactive Avionic Trg Rehost/400 HZ Upgrade(†)	A		-	-	-	32,000.00	1	0.032	-	-	-	-	-	-	-	-	-	-	-	-
1.13) E-6 - OFT Tech Modernization(†)	A		-	-	-	3,649K	1	3.649	-	-	-	-	-	-	-	-	-	-	-	-
1.14) E-6 - Mission Avionics Sys Trg (MAST) Cyber Security Upg(†)	A		-	-	-	200,000.00	1	0.200	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.15) E-6 - Windows 7 Upgrades	A		78,250.00	12	0.939	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.16) E-6 - Windows 10 Upgrade	A		126,000.00	1	0.126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.17) EP-3 - 10H1 Device Upgrades	A		-	-	5.463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.18) FA-18 - Equipment Modernization(†)	A		4,555K	5	22.777	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.19) FA-18 - Equipment Modernization Phase I	A		3,919K	1	3.919	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.20) FA-18 - Equipment Modernization Phase II	A		-	-	3.978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.21) P-3C - 2F179A TORT Windows 7 Upgrades	A		-	-	0.806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.22) P-3C - 14B59 FDT Windows 7 Upgrades	A		-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.23) P-3C - 2F87 OFT Tech Refresh	A		-	-	0.924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.24) P-3C - 2F179A TORT Tech Refresh	A		-	-	1.009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.25) UMFO Training - MCS Block 1B	A		-	-	3.863	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.26) USMC Fed Sim - Aviation Dist Virtual Trng Environ (ADVTE) Modernization (14)(†)	A		-	-	5.073	-	-	-	9,746K	1	9.746	14,119K	1	14.119	-	-	-	14,119K	1	14.119
1.29) USMC Fed Sim - Marine Common Aircrew Trainer (MCAT) Upgrades	A		-	-	0.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)(†)	A		11,000K	5	55.000	9,244K	2	18.487	-	-	-	-	-	-	-	-	-	-	-	-
1.31) USMC Fed Sim - MCATS KG-175F Modernization	A		-	-	0.357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.32) USMC Fed Sim - MCAT GFE UH-1Y Weapons Mounts	A		-	-	1.739	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.33) USMC Fed Sim - MCAT GFE CH-53 Weapons Mounts	A		-	-	1.306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.34) USMC Fed Sim - MCAT GFE MV-22 Weapons Mounts	A		-	-	0.554	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.35) USMC Fed Sim - MCAT P2 Upgrades(†)	A		-	-	-	3,200.00	1	0.003	-	-	-	-	-	-	-	-	-	-	-	-
1.36) USMC Fed Sim - CH-53E CFTD Modernization(†)	A		6,631K	1	6.631	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.37) USMC Fed Sim - CH-53E Aircrew Procedure Trnr (APT) Modernization	A		-	-	8.616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.38) USMC Fed Sim - CH-53E OCONUS Aircrew Procedures Trainer (APT)(†)	A		7,806K	1	7.806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.39) USMC Fed Sim - CH-53E Weapon System Trainer (WST) Modernization	A		5,356K	2	10.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.40) USMC Fed Sim - KC-130J Weapons System Trainer (WST) Modernization(†)	A		6,955K	1	6.955	-	-	-	8,007K	2	16.014	-	-	-	-	-	-	-	-	-
1.41) USMC Fed Sim - KC-130J OCONUS Wpn Sys Trainer (WST) Modernization	A		16,948K	1	16.948	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.42) USMC Fed Sim - AH-1Z Flight Training Device (FTD) Modernization(†)	A		-	-	0.032	3,904K	1	3.904	-	-	-	-	-	-	-	-	-	-	-	-
1.43) USMC Fed Sim - AH-1Z Full Flight Simulator (FFS) Modernization(†)	A		-	-	7.329	4,069K	1	4.069	-	-	-	-	-	-	-	-	-	-	-	-
1.44) USMC Fed Sim - UH-1Y Flight Training Device (FTD) Modernization(†)	A		11,020K	1	11.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.45) USMC Fed Sim - UH-1Y Full	A		8,192K	1	8.192	6,437K	1	6.437	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Flight Simulator (FFS) Modernization(†)																				
1.46) USMC Fed Sim - MV-22 CFTD Modernization(†)	A		3,864K	4	15.457	-	-	-	4,155K	8	33.238	4,048K	4	16.190	-	-	-	4,048K	4	16.190
1.47) USMC Fed Sim - FA-18 C/D Tact Operational Flt Trnr (TOFT) Modernization (15)(†)	A		1,626K	8	13.008	2,500K	4	10.000	-	-	-	2,317K	12	27.804	-	-	-	2,317K	12	27.804
1.48) USMC Fed Sim - FA-18 C/D OCONUS TOFT Modernization(†)	A		-	-	-	-	-	-	-	-	-	2,653K	3	7.958	-	-	-	2,653K	3	7.958
1.49) USMC Fed Sim - FA-18 C/D SimuStrike Trainer (16)(†)	A		-	-	-	1,242K	5	6.210	-	-	-	-	-	-	-	-	-	-	-	-
1.50) USMC Fed Sim - AV-8B Weapons Systems Trainer (WST) Modernization(†)	A		-	-	-	3,852K	1	3.852	5,163K	4	20.652	-	-	-	-	-	-	-	-	-
1.51) USMC Fed Sim - AV-8B Maintenance Trainer (MT) Modernization	A		-	-	3.685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.52) USMC Fed Sim - AV-8B Deployable Mission Rehearsal Trainer (DMRT)(†)	A		1,051K	8	8.409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.53) USMC Fed Sim - AV-8B DMRT Modernization(†)	A		13,125.00	8	0.105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.54) USMC Fed Sim - AV-8B - Scan Converter Upgrade	A		1,000.00	6	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.55) USMC Fed Sim - VH-3D Aircrew Procedures Trainer (APT) Modernization	A		-	-	0.937	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.56) USMC Fed Sim - VH-3D APT Visual Database Upgrades	A		-	-	0.995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.57) USMC Fed Sim - VH-60N CFTD	A		-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Visual Database Upgrade																				
1.59) USMC Fed Sim - USMC Training Continuum Integration Upgrades	A		-	-	0.426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.60) USMC Fed Sim - CH-53E TCI Basic Training Courseware Upgrades	A		-	-	0.279	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.61) E-2/C-2 - C2 Operational Flight Trainer (OFT) Tech Upgrades	A		-	-	13.586	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.62) E-2/C-2 - C2 OFT ASTi Digital Aural Comms Sys Upgrades	A		-	-	0.161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.63) E-2/C-2 - Enhanced Distributed Readiness Trainer (EDRT) Tech Upgrades	A		-	-	0.545	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.64) E-2/C-2 - E-2 Cooperative Engagement Capibility (CEC) Upgrades	A		-	-	0.320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.65) E-2/C-2 - E-2 Win 10 Upgrade(†)	A		744,000.00	1	0.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.66) MH-53 - AMCM Stream & Recovery Mod (ASRM) Upgrades	A		-	-	2.193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.67) MH-53 - 2H165 Config and Cargo Load Procedures Trainer (CCLPT) Upgrades	A		-	-	1.033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.68) MH-53 - CCLPT/ Operational Flight Trainer (OFT)/ASRM Upgrades(†)	A		-	-	2.090	-	-	-	221,000.00	1	0.221	-	-	-	-	-	-	-	-	-
1.69) MH-53 - 2H162 Enhanced Aircrew External Trainer Upgrades(†)	A		-	-	0.662	-	-	-	350,000.00	1	0.350	-	-	-	-	-	-	-	-	-
1.70) NASMP - Navy Continuous Training	A		-	-	1.281	-	-	-	-	-	-	400,000.00	2	0.800	-	-	-	400,000.00	2	0.800

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Environment (NCTE) Nodes Upgrades(†)																				
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)(†)	A		7,880K	4	31.522	-	-	-	10,000.00	1	0.010	-	-	-	-	-	-	-	-	-
1.72) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET) Upgrades	A		-	-	0.064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.73) NASMP - MH-60S Technology Refresh Upgrades(†)	A		11,701K	3	35.102	9,120K	1	9.120	-	-	-	-	-	-	-	-	-	-	-	-
1.74) NASMP - MH-60R Technology Refresh Upgrades(†)	A		7,429K	3	22.287	96,000.00	1	0.096	-	-	-	-	-	-	-	-	-	-	-	-
1.75) NASMP - MH-60R/S TRPS Telestra Upgrade	A		65,000.00	1	0.065	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)(†)	A		8,461K	4	33.844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.77) NASMP - MH-60R Naval Aircrew Training Systems (NATS) Upgrades(†)	A		-	-	0.039	-	-	-	9,000.00	1	0.009	-	-	-	-	-	-	-	-	-
1.78) NASMP - MH-60 AVET/NATS Image Generator (IG) Modernization	A		-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.79) NASMP - MH-60 Threat Attributes Production (JSAF)	A		-	-	0.798	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.80) NASMP - MH-60 WIN 10 Upgrade(†)	A		396,000.00	1	0.396	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.81) NASMP - MH-60S Tech Refresh Aircrew Trg and Optimize Prog (ATOP) Upgs(†)	A		3,922K	2	7.844	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.82) NASMP - FA/ EA-18 - System Fidelity Upgrades (TECR)	A		-	-	15.434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.83) NASMP - FA/EA-18 Next Generation Threat System (NGTS) V3.2 Upgrades	A		6,250K	1	6.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.84) NASMP - FA/ EA-18 NGTS v3.2 Upgrades(†)	A		14,760K	1	14.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.86) NASMP - FA/ EA-18 Visual Display Upgrades	A		-	-	15.036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.87) NASMP - FA/ EA-18 COMMS Upgrades(†)	A		5,180K	1	5.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.88) NASMP - FA/ EA-18 Weps Fidelity Upgrades(†)	A		-	-	-	6,441K	1	6.441	-	-	-	16,200K	1	16.200	-	-	-	16,200K	1	16.200
1.89) NASMP - FA/ EA-18 Seat Upgrades	A		-	-	15.964	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.90) NASMP - FA/ EA-18 Blue Forces, Threat, Terrain VDB Upgrades(†)	A		-	-	-	24,087K	1	24.087	-	-	-	-	-	-	-	-	-	-	-	-
1.91) NASMP - FA/ EA-18 Airborne Electronic Attack (AEA) Model Fidelity Upgs(†)	A		8,239K	1	8.239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.92) NASMP - FA/ EA-18 APG-79 AESA Fidelity Upgrades(†)	A		9,950K	1	9.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.93) NASMP - FA/EA-18 APG-73 Fidelity Upgrades(†)	A		3,477K	1	3.477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.94) NASMP - FA/ EA-18 Electro-Optical/ Infra-Red (EO/IR) Upgrades(†)	A		2,700K	1	2.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.95) NASMP - FA/ EA-18 SAN Disk Upgrades	A		569,695.65	23	13.103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.96) NASMP - FA/ EA-18 Cockpit HW Upgrades(†)	A		-	-	-	-	-	-	183,360.00	25	4.584	-	-	-	-	-	-	-	-	-
1.97) NASMP - FA/EA-18 NASMP	A		6,806K	1	6.806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.4 / Fleet Synthetic Training (FST) Upgrades(†)																				
1.98) NASMP - FA/ EA-18 Malfunctions Fidelity Upgrades(†)	A		-	-	-	8,238K	1	8.238	-	-	-	-	-	-	-	-	-	-	-	-
1.99) NASMP - FA/ EA-18 Aural Cueing HW Upgrades	A		-	-	8.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.100) NASMP - FA/ EA-18 MIDS Fidelity Upgrades(†)	A		5,851K	1	5.851	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.101) NASMP - FA/ EA-18 Windows 7 Upgrades	A		-	-	1.499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.102) NASMP - FA/ EA-18 - TOFT Mission Upgrades	A		-	-	1.543	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.103) NASMP - FA/EA-18 - TOFT Software Gold Disk Upgrades(†)	A		2,299K	1	2.299	1,801K	1	1.801	1,723K	1	1.723	1,771K	1	1.771	-	-	-	1,771K	1	1.771
1.104) NASMP - Common Acoustic Simulation Environment (CASE) Upgrades(†)	A		12,985K	1	12.985	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.105) NASMP - CASE MH-60R TOFT #4 Integration(†)	A		886,000.00	1	0.886	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.106) NASMP - CASE FI - Integration in TOFTS 1-3, 5-7, 12-14 Phase I(†)	A		-	-	-	-	-	-	247,000.00	1	0.247	-	-	-	-	-	-	-	-	-
1.107) NASMP - CASE FI - Integration in TOFTS 1-3, 5-7, 12-14 Phase II(†)	A		-	-	-	-	-	-	196,000.00	1	0.196	-	-	-	-	-	-	-	-	-
1.108) NASMP - CASE MH-60R TOFT Integration Manned Flight Simulator (MFS)(†)	A		821,000.00	1	0.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.109) NASMP - CASE Data Set(†)	A		700,000.00	1	0.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.111) NASMP - MH-60R/S NGTS Integration(†)	A		6,200K	1	6.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.112) NASMP - Cross Domain Solution (CDS) Upgrades(†)	A		-	-	-	-	-	-	1,000K	1	1.000	1,500K	1	1.500	-	-	-	1,500K	1	1.500
1.114) NASMP - E-2D Hawkeye Integrated Training System (HITS) WIN10 Upgrades(†)	A		-	-	-	-	-	-	-	-	-	24,709K	1	24.709	-	-	-	24,709K	1	24.709
1.115) NASMP - Host-Based Security System (HBSS) Upgrades(†)	A		-	-	-	1,108K	1	1.108	-	-	-	-	-	-	-	-	-	-	-	-
1.117) NASMP - E-6B OFT/IAT Trainer Tech Refresh(†)	A		1,130K	1	1.130	-	-	-	-	-	-	1,320K	1	1.320	-	-	-	1,320K	1	1.320
1.119) NASMP - MH-53 - CCLPT/ Operational Flt Trng (OFT)/ASRM Upgs(†)	A		-	-	-	-	-	-	-	-	-	547,000.00	1	0.547	-	-	-	547,000.00	1	0.547
1.120) NASMP - Navy Electronic Warfare Tactical Training Database (NEWTT DB)	A		-	-	0.600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.121) NASMP - Navy Aviation Distributed Training Center (NADTC) 1.0	A		-	-	1.950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.122) NASMP - Navy Aviation Distributed Training Center (NADTC) 2.0(†)	A		3,819K	1	3.819	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.123) NASMP - NADTC & Distributed Mission Training (DMT) Enablers Upgrades(†)	A		-	-	-	-	-	-	2,600K	1	2.600	13,136K	1	13.136	-	-	-	13,136K	1	13.136
1.124) NASMP - NADTC Secure Video Teleconference Brief/ Debrief Upgrade(†)	A		510,000.00	1	0.510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.125) NASMP - FA-18 IOS-BDS-MOC	A		-	-	-	5,235K	1	5.235	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
Stores Management Fidelity Upgrades (17)(†)																				
1.126) NASMP - FA-18 IOS-BDS-MOC Ownship Fidelity Upgrades(†)	A		-	-	-	-	-	-	-	-	-	10,218K	1	10.218	-	-	-	10,218K	1	10.218
1.127) NASMP - FA-18 IOS-BDS-MOC Targets/Maps Fidelity Upgrades(†)	A		-	-	-	-	-	-	6,271K	1	6.271	-	-	-	-	-	-	-	-	-
1.128) NASMP - FA-18 Common IOS-BDS-MOC Console & Displays Fidelity Upgrades(†)	A		-	-	-	-	-	-	-	-	-	10,427K	1	10.427	-	-	-	10,427K	1	10.427
1.129) NASMP - FA-18 Host Computer Tech Refresh(†)	A		-	-	-	-	-	-	-	-	-	309,000.00	1	0.309	-	-	-	309,000.00	1	0.309
1.130) NASMP - FA/ EA-18 Windows 10 Upgrades(†)	A		-	-	-	-	-	-	6,700K	1	6.700	-	-	-	-	-	-	-	-	-
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)(†)	A		-	-	-	-	-	-	-	-	-	1,245K	20	24.900	-	-	-	1,245K	20	24.900
1.133) NASMP - P-8A Information Assurance Upgrades(†)	A		-	-	-	-	-	-	-	-	-	2,970K	1	2.970	-	-	-	2,970K	1	2.970
1.134) NASMP - CNATRA - T-45 Kingsville 2F138E OFT Upgrades(†)	A		-	-	-	-	-	-	-	-	-	11,731K	1	11.731	-	-	-	11,731K	1	11.731
1.135) NASMP - CNATRA - T-45 Pensacola 2F205A OFT Upgrades(†)	A		-	-	-	-	-	-	-	-	-	8,988K	2	17.977	-	-	-	8,988K	2	17.977
1.136) NASMP - CNATRA - T-45 VMTS Inst Grnd Stat (IGS) Upgs (18)(†)	A		-	-	-	-	-	-	-	-	-	3,000K	1	3.000	-	-	-	3,000K	1	3.000
1.141) LVC - Next Generation Threat System Upgrades(†)	A		2,148K	1	2.148	200,000.00	1	0.200	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1.142) LVC - Integrated Training Facility (ITF) (19)	A		-	-	12.711	-	-	10.603	-	-	15.704	-	-	22.369	-	-	-	-	-	22.369
Subtotal: 1) Hardware			**-**	**-**	***610.355***	**-**	**-**	***123.772***	**-**	**-**	***119.265***	**-**	**-**	***229.955***	**-**	**-**	**-**	**-**	**-**	***229.955***
2) ILS																				
2.1) CNATRA	A		-	-	1.909	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) E-6	A		-	-	0.533	-	-	0.070	-	-	-	-	-	-	-	-	-	-	-	-
2.3) EP-3	A		-	-	0.353	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.4) FA-18	A		-	-	1.064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5) P-3C	A		-	-	0.242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6) UMFO Training	A		-	-	1.095	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.7) USMC Federation Simulators	A		-	-	13.058	-	-	2.614	-	-	2.040	-	-	2.081	-	-	-	-	-	2.081
2.8) E-2/C-2	A		-	-	1.548	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.9) MH-53	A		-	-	1.000	-	-	-	-	-	0.172	-	-	-	-	-	-	-	-	-
2.10) NASMP	A		-	-	9.082	-	-	4.448	-	-	5.484	-	-	6.128	-	-	-	-	-	6.128
2.11) LVC	A		-	-	0.266	-	-	0.199	-	-	0.255	-	-	0.305	-	-	-	-	-	0.305
Subtotal: 2) ILS			**-**	**-**	***30.150***	**-**	**-**	***7.331***	**-**	**-**	***7.951***	**-**	**-**	***8.514***	**-**	**-**	**-**	**-**	**-**	***8.514***
3) Production Engineering																				
3.1) CNATRA	A		-	-	9.033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2) E-6	A		-	-	2.941	-	-	0.284	-	-	-	-	-	-	-	-	-	-	-	-
3.3) EP-3	A		-	-	0.913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.4) FA-18	A		-	-	17.620	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.5) P-3C	A		-	-	0.666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.6) UMFO Training	A		-	-	4.547	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.7) USMC Federation Simulators	A		-	-	36.601	-	-	6.621	-	-	5.344	-	-	5.663	-	-	-	-	-	5.663
3.8) E-2/C-2	A		-	-	3.822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.9) MH-53	A		-	-	1.306	-	-	-	-	-	0.332	-	-	-	-	-	-	-	-	-
3.10) NASMP	A		-	-	79.557	-	-	12.845	-	-	17.227	-	-	16.688	-	-	-	-	-	16.688
3.11) LVC	A		-	-	2.254	-	-	0.492	-	-	0.440	-	-	1.800	-	-	-	-	-	1.800
Subtotal: 3) Production Engineering			**-**	**-**	***159.260***	**-**	**-**	***20.242***	**-**	**-**	***23.343***	**-**	**-**	***24.151***	**-**	**-**	**-**	**-**	**-**	***24.151***
4) Acceptance Testing																				
4.1) CNATRA	A		-	-	1.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2) E-6	A		-	-	0.219	-	-	0.023	-	-	-	-	-	-	-	-	-	-	-	-
4.3) EP-3	A		-	-	0.239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4) P-3C	A		-	-	0.394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5) UMFO Training	A		-	-	0.393	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items Title: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
4.6) USMC Federation Simulators	A		-	-	2.391	-	-	0.779	-	-	0.793	-	-	0.809	-	-	-	-	-	0.809
4.7) E-2/C-2	A		-	-	0.289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.8) NASMP	A		-	-	7.173	-	-	2.030	-	-	2.094	-	-	2.087	-	-	-	-	-	2.087
4.9) LVC	A		-	-	1.265	-	-	0.556	-	-	0.303	-	-	0.721	-	-	-	-	-	0.721
Subtotal: 4) Acceptance Testing			**-**	**-**	***13.364***	**-**	**-**	***3.388***	**-**	**-**	***3.190***	**-**	**-**	***3.617***	**-**	**-**	**-**	**-**	**-**	***3.617***
5) Production Support																				
5.1) CNATRA	A		-	-	3.737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2) E-6	A		-	-	1.650	-	-	0.451	-	-	-	-	-	-	-	-	-	-	-	-
5.3) EP-3	A		-	-	1.987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.4) FA-18	A		-	-	2.392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5) P-3C	A		-	-	1.976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6) UMFO Training	A		-	-	2.410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.7) E-2/C-2	A		-	-	1.618	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8) MH-53	A		-	-	1.011	-	-	-	-	-	0.187	-	-	-	-	-	-	-	-	-
5.9) USMC Federation Simulators	A		-	-	31.782	-	-	5.096	-	-	4.626	-	-	4.785	-	-	-	-	-	4.785
5.10) NASMP	A		-	-	51.803	-	-	9.814	-	-	10.114	-	-	10.138	-	-	-	-	-	10.138
5.11) LVC	A		-	-	1.208	-	-	0.629	-	-	0.538	-	-	0.580	-	-	-	-	-	0.580
Subtotal: 5) Production Support			**-**	**-**	***101.574***	**-**	**-**	***15.990***	**-**	**-**	***15.465***	**-**	**-**	***15.503***	**-**	**-**	**-**	**-**	**-**	***15.503***
Total			**-**	**-**	**914.703**	**-**	**-**	**170.723**	**-**	**-**	**169.214**	**-**	**-**	**281.740**	**-**	**-**	**-**	**-**	**-**	**281.740**

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

(†) indicates the presence of a P-5a

Footnotes:

(13) Applies to all Hardware Upgrades/Modernization efforts: Total quantity and cost of device Upgrades/Modernization may vary year to year. These Upgrades/Modernization efforts do not increase inventory since they are on existing devices (cost of Upgrading/Modernization of individual devices may vary due to various factors such as age, condition or current device capability) except for the following line items that do increase inventory quantities: 1.30, 1.52, 1.71, 1.76, 1.131, 1.137, 1.140.

(14) USMC Fed Sim - Aviation Dist Virtual Trng Environ (ADVTE) Modernization. ADVTE is a System-of-System consisting of Marine Aviation Training System (ATS) training devices, centralized Network Exercise Control Centers and networking equipment necessary to deliver virtual and constructive simulation based training. FY19 contract is base award with FY20 and out being options. FY19 funding will be used to modernize existing ADVTE equipment and components initially fielded in March 2013 at 2nd and 3rd Marine Aircraft Wing (MAW) Aviation Training Sites (ATS). The increase in cost from FY19 to FY20 represents the current FY20 cost estimate to install new ADVTE capability at 1st MAW. The USMC budget has funding in FY21-23 to implement the Common Virtual Training Area (CVTA) that will be used across the ADVTE network.

(15) FY18 Congressional Add funding supporting HQMC FA-18C/D Training Systems.

(16) FY18 Congressional Add funding supporting HQMC FA-18C/D Training Systems.

(17) Instructor Operator Station (IOS)-Brief Debrief Station (BDS)-Mission Operations Center (MOC)

(18) NASMP - CNATRA - T-45 Virtual Mission Training System (VMTS) Instructor Ground Station (IGS) Upgrades

(19) This line funds procurement of various equipment necessary to create an Integrated Training Facility at the Naval Aviation Warfighting Development Center (NAWDC), Fallon. Fluctuations in funding from year to year are based on the individual Fleet training requirements for multiple aircraft Type/Model/Series.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Hardware												
1.1) CNATRA - T-45 Operational Flight Trainer (OFT) Upgrades (13)		2014	ASI. / Tampa, FL	C / FFP	NAWCTSD	Oct 2015	Jan 2019	1	12,354K	Y		Apr 2015
1.1) CNATRA - T-45 Operational Flight Trainer (OFT) Upgrades (13)		2017	ASI / Tampa, FL	C / FFP	NAWCTSD	Dec 2016	Sep 2019	1	3,912K	Y		Apr 2015
1.4) CNATRA - T-6 Win 10 Upgrades		2016 (20)	Flight Safety Int. / Centennial, CO	MIPR	NAWCTSD	Jan 2017	May 2018	1	12,330K	Y		Jan 2016
1.12) E-6 - Interactive Avionic Trg Rehost/400 HZ Upgrade		2018	Triton JV, LLC / Orlando, FL	C / FFP	NAWCTSD	May 2018	Sep 2018	1	32,000.00	Y		Feb 2015
1.13) E-6 - OFT Tech Modernization		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	NAWCTSD	Apr 2018	Dec 2019	1	3,649K	Y		Jan 2018
1.14) E-6 - Mission Avionics Sys Trg (MAST) Cyber Security Upg		2018	Fidelity Technologies Corp / Reading, PA	C / FFP	NAWCTSD	Jul 2018	Dec 2018	1	200,000.00	Y		May 2018
1.18) FA-18 - Equipment Modernization		2017	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Feb 2017	Dec 2019	1	3,922K	Y		Dec 2016
1.26) USMC Fed Sim - Aviation Dist Virtual Trng Environ (ADVTE) Modernization (14)		2019	TBD / TBD	C / FFP	NAWCTSD	Mar 2019	Mar 2021	1	9,746K	Y		Aug 2018
1.26) USMC Fed Sim - Aviation Dist Virtual Trng Environ (ADVTE) Modernization (14)		2020	TBD / TBD	C / FFP	NAWTSD	Nov 2019	Nov 2021	1	14,119K	Y		Aug 2018
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)(†)		2014	Kratos Technology / San Diego, CA	C / FFP	NAWCTSD	Aug 2016	Jan 2020	2	11,100K	Y		Oct 2015
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)(†)		2015	Kratos Technology / San Diego, CA	C / FFP	NAWCTSD	Aug 2016	Mar 2020	3	10,933K	Y		Oct 2015
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)(†)		2018	Kratos Technology / San Diego, CA	C / FFP	NAWCTSD	Jun 2018	Jan 2022	2	9,244K	Y		Oct 2015
1.35) USMC Fed Sim - MCAT P2 Upgrades		2018	NAWCTSD / Orlando, FL	PO	NAWTSD	May 2018	Aug 2018	1	3,200.00	Y		
1.36) USMC Fed Sim - CH-53E CFTD Modernization		2017	Aero Simulation, Inc. / Tampa, FL	C / FFP	NAWCTSD	Sep 2017	Feb 2020	1	6,631K	Y		Nov 2016
1.38) USMC Fed Sim - CH-53E OCONUS Aircrew Procedures Trainer (APT)		2017	ASI. / Tampa, FL	C / FFP	NAWCTSD	Sep 2017	Jan 2019	1	7,806K	Y		Nov 2016
1.40) USMC Fed Sim - KC-130J Weapons System Trainer (WST) Modernization		2019	Lockheed Martin / Orlando, FL	MIPR	USAF MATL CMD	Mar 2019	Mar 2021	2	8,007K	Y		Sep 2018

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.42) USMC Fed Sim - AH-1Z Flight Training Device (FTD) Modernization		2018	Flight Safety International / Broken Arrow, OK	C / FFP	NAWCTSD	Aug 2018	Jun 2020	1	3,904K	Y		Feb 2018
1.43) USMC Fed Sim - AH-1Z Full Flight Simulator (FFS) Modernization		2018	Flight Safety International / Broken Arrow, OK	C / FFP	NAWCTSD	Aug 2018	Sep 2020	1	4,069K	Y		Feb 2018
1.44) USMC Fed Sim - UH-1Y Flight Training Device (FTD) Modernization		2017	Flight Safety International / Broken Arrow, OK	C / FFP	NAWCTSD	Aug 2018	Jan 2021	1	3,490K	Y		Feb 2018
1.45) USMC Fed Sim - UH-1Y Full Flight Simulator (FFS) Modernization		2018	Flight Safety International / Broken Arrow, OK	C / FFP	NAWCTSD	Aug 2018	Jul 2020	1	6,437K	Y		Feb 2018
1.46) USMC Fed Sim - MV-22 CFTD Modernization		2017	Bell Boeing / Amarillo, TX	C / FFP	NAWCTSD	Feb 2018	Feb 2019	4	3,864K	Y		Jul 2017
1.46) USMC Fed Sim - MV-22 CFTD Modernization		2019	Bell Boeing / Amarillo, TX	C / FFP	NAWTSD	Nov 2018	Nov 2020	8	4,155K	Y		Jul 2017
1.46) USMC Fed Sim - MV-22 CFTD Modernization		2020	Bell Boeing / Amarillo, TX	C / FFP	NAWTSD	Nov 2019	Nov 2021	4	4,048K	Y		Jul 2017
1.47) USMC Fed Sim - FA-18 C/D Tact Operational Flt Trnr (TOFT) Modernization (15)		2016	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Mar 2017	Apr 2019	2	3,115K	Y		Nov 2016
1.47) USMC Fed Sim - FA-18 C/D Tact Operational Flt Trnr (TOFT) Modernization (15)		2017	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Mar 2017	Dec 2019	6	1,130K	Y		Nov 2016
1.47) USMC Fed Sim - FA-18 C/D Tact Operational Flt Trnr (TOFT) Modernization (15)		2018	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Sep 2019	Sep 2021	4	2,500K	Y		Apr 2019
1.47) USMC Fed Sim - FA-18 C/D Tact Operational Flt Trnr (TOFT) Modernization (15)		2020	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Nov 2019	Nov 2021	12	2,317K	Y		Jun 2019
1.48) USMC Fed Sim - FA-18 C/D OCONUS TOFT Modernization		2020	L-3 Communications / Arlington, TX	SS / FFP	NAWTSD	Nov 2019	Nov 2021	3	2,653K	Y		Jun 2018
1.49) USMC Fed Sim - FA-18 C/D SimuStrike Trainer (16)		2018	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Mar 2019	Mar 2021	5	1,242K	Y		Oct 2018
1.50) USMC Fed Sim - AV-8B Weapons Systems Trainer (WST) Modernization		2018	Cymstar LLC / Broken Arrow, OK	C / FFP	NAWCTSD	Dec 2018	Apr 2022	1	3,852K	Y		Jun 2017
1.50) USMC Fed Sim - AV-8B Weapons Systems Trainer (WST) Modernization		2019	Cymstar LLC / Broken Arrow, OK	C / FFP	NAWCTSD	Dec 2018	Apr 2022	4	5,163K	Y		Jun 2017

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.52) USMC Fed Sim - AV-8B Deployable Mission Rehearsal Trainer (DMRT)		2014	Logistics Services International / Jacksonville, FL	C / FFP	NAWCTSD	Aug 2016	Nov 2018	2	2,110K	Y		Oct 2014
1.52) USMC Fed Sim - AV-8B Deployable Mission Rehearsal Trainer (DMRT)		2015	Logistics Services International / Jacksonville, FL	C / FFP	NAWCTSD	Aug 2016	Nov 2018	6	655,166.67	Y		Oct 2014
1.53) USMC Fed Sim - AV-8B DMRT Modernization		2016	Logistics Services International / Jacksonville, FL	C / FFP	NAWCAD TSD	Jan 2018	Jul 2018	8	13,125.00	Y		Dec 2017
1.65) E-2/C-2 - E-2 Win 10 Upgrade		2017	NAWCTSD / Orlando, FL	PO	NAWCTSD	Mar 2017	Sep 2019	1	744,000.00	Y		
1.68) MH-53 - CCLPT/Operational Flight Trainer (OFT)/ASRM Upgrades		2019	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Mar 2019	Mar 2020	1	221,000.00	Y		
1.69) MH-53 - 2H162 Enhanced Aircrew External Trainer Upgrades		2019	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Mar 2019	Mar 2020	1	350,000.00	Y		
1.70) NASMP - Navy Continuous Training Environment (NCTE) Nodes Upgrades		2020	NWDC (1) / Norfolk, VA	MIPR	DTIC	Jul 2020	Jul 2021	2	400,000.00	Y		Feb 2020
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)(†)		2013	BSC Partners / Binghampton, NY	SS / FFP	NAWCTSD	Nov 2013	Feb 2019	1	12,524K	Y		May 2013
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)(†)		2014	BSC Partners / Binghampton, NY	SS / FFP	NAWCTSD	Sep 2015	Jun 2019	2	6,380K	Y		May 2013
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)(†)		2015	BSC Partners* / Binghampton, NY	SS / FFP	NAWCTSD	Dec 2014	Jul 2019	1	6,238K	Y		May 2013
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)		2019	BSC Partners** / Binghampton, NY	SS / FFP	NAWCTSD	Dec 2018	Dec 2018	1	10,000.00	Y		Nov 2018
1.73) NASMP - MH-60S Technology Refresh Upgrades		2014	CAE / Tampa, FL	C / FFP	NAWCTSD	Sep 2015	Mar 2019	1	8,055K	Y		Feb 2014
1.73) NASMP - MH-60S Technology Refresh Upgrades		2015	CAE / Tampa, FL	C / FFP	NAWCTSD	Sep 2017	Mar 2020	1	3,615K	Y		Jul 2017
1.73) NASMP - MH-60S Technology Refresh Upgrades		2016	CAE / Tampa, FL	C / FFP	NAWCTSD	Nov 2015	Sep 2019	1	8,563K	Y		Feb 2014
1.73) NASMP - MH-60S Technology Refresh Upgrades		2018	CAE / Tampa, FL	C / FFP	NAWCTSD	Nov 2017	May 2020	1	9,120K	Y		Feb 2014
1.74) NASMP - MH-60R Technology Refresh Upgrades		2014	CAE / Tampa, FL	C / FFP	NAWCTSD	Sep 2015	Mar 2019	1	150,000.00	Y		Feb 2014

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.74) NASMP - MH-60R Technology Refresh Upgrades		2016	CAE / Tampa, FL	C / FFP	NAWCTSD	Dec 2016	Apr 2020	1	753,000.00	Y		Feb 2014
1.74) NASMP - MH-60R Technology Refresh Upgrades		2017	CAE / Tampa, FL	C / FFP	NAWCTSD	Oct 2016	Nov 2020	1	9,817K	Y		Feb 2014
1.74) NASMP - MH-60R Technology Refresh Upgrades		2018	CAE / Tampa, FL	C / FFP	NAWCTSD	Nov 2017	May 2020	1	96,000.00	Y		Feb 2014
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)(†)		2013	BSC Partners / Binghampton, NY	SS / FFP	NAWCTSD	Nov 2013	Apr 2019	2	9,696K	Y		Apr 2013
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)(†)		2015	BSC Partners / Binghampton, NY	SS / FFP	NAWCTSD	Dec 2014	Sep 2019	1	7,441K	Y		Apr 2013
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)(†)		2017	BSC Partners / Binghampton,NY	SS / FFP	NAWCTSD	May 2017	Dec 2019	1	6,272K	Y		Apr 2013
1.77) NASMP - MH-60R Naval Aircrew Training Systems (NATS) Upgrades		2019	BSC Partners / Binghampton, NY	SS / FFP	NAWCTSD	Nov 2018	Nov 2019	1	9,000.00	Y		Jul 2016
1.80) NASMP - MH-60 WIN 10 Upgrade		2017	CAE / Tampa, FL	C / FFP	NAWCTSD	Jun 2017	Dec 2020	1	396,000.00	Y		Mar 2017
1.81) NASMP - MH-60S Tech Refresh Aircrew Trg and Optimize Prog (ATOP) Upgs		2016	CAE / Tampa, FL	C / FFP	NAWCTSD	Sep 2018	Sep 2020	1	3,144K	Y		Mar 2018
1.81) NASMP - MH-60S Tech Refresh Aircrew Trg and Optimize Prog (ATOP) Upgs		2017	CAE / Tampa, FL	C / FFP	NAWCTSD	Mar 2019	Mar 2021	1	4,700K	Y		Mar 2018
1.84) NASMP - FA/EA-18 NGTS v3.2 Upgrades		2016	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Sep 2017	Feb 2020	1	14,760K	Y		Jan 2016
1.87) NASMP - FA/EA-18 COMMS Upgrades		2016	L3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Sep 2016	Feb 2020	1	5,180K	Y		Jan 2016
1.88) NASMP - FA/EA-18 Weps Fidelity Upgrades		2018	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Aug 2018	Aug 2020	1	6,441K	Y		Nov 2017
1.88) NASMP - FA/EA-18 Weps Fidelity Upgrades		2020	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Mar 2020	Mar 2022	1	16,200K	Y		Nov 2019
1.90) NASMP - FA/EA-18 Blue Forces, Threat, Terrain VDB Upgrades		2018	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Aug 2018	Aug 2020	1	24,087K	Y		Nov 2017
1.91) NASMP - FA/EA-18 Airborne Electronic Attack (AEA) Model Fidelity Upgs		2017	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Apr 2018	Apr 2020	1	8,239K	Y		Mar 2016

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.92) NASMP - FA/EA-18 APG-79 AESA Fidelity Upgrades		2017	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Apr 2018	Apr 2020	1	9,950K	Y		Dec 2016
1.93) NASMP - FA/EA-18 APG-73 Fidelity Upgrades		2016	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Sep 2016	Sep 2018	1	3,477K	Y		Jan 2016
1.94) NASMP - FA/EA-18 Electro-Optical/Infra-Red (EO/IR) Upgrades		2016	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Sep 2016	Sep 2018	1	2,700K	Y		Jan 2016
1.96) NASMP - FA/EA-18 Cockpit HW Upgrades		2019	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Oct 2018	Oct 2018	25	183,360.00	Y		Jan 2016
1.97) NASMP - FA/EA-18 NASMP 1.4 / Fleet Synthetic Training (FST) Upgrades		2016	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Sep 2016	Sep 2018	1	6,806K	Y		Jan 2016
1.98) NASMP - FA/EA-18 Malfunctions Fidelity Upgrades		2018	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Aug 2018	Feb 2020	1	8,238K	Y		Nov 2017
1.100) NASMP - FA/EA-18 MIDS Fidelity Upgrades		2016	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Sep 2016	Sep 2018	1	5,851K	Y		Jan 2016
1.103) NASMP - FA/EA-18 - TOFT Software Gold Disk Upgrades		2018	L3 Communications / Arlington, TX	SS / FFP	NAWTSD	Apr 2018	Dec 2018	1	1,801K	Y		Dec 2017
1.103) NASMP - FA/EA-18 - TOFT Software Gold Disk Upgrades		2019	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Mar 2019	Mar 2020	1	1,723K	Y		Dec 2017
1.103) NASMP - FA/EA-18 - TOFT Software Gold Disk Upgrades		2020	L3 Communications / Arlington, TX	C / TBD	NAWCTSD	Mar 2020	Mar 2021	1	1,771K	Y		Dec 2017
1.104) NASMP - Common Acoustic Simulation Environment (CASE) Upgrades		2016	AAC Inc. / Hauppage, NY	SS / FFP	NAWCTSD	Jul 2016	Jul 2018	1	12,985K	Y		Mar 2016
1.105) NASMP - CASE MH-60R TOFT #4 Integration		2017	AAC Inc. / Hauppage, NY	SS / FFP	NAWCTSD	Mar 2017	Mar 2019	1	886,000.00	Y		Oct 2016
1.106) NASMP - CASE FI - Integration in TOFTS 1-3, 5-7, 12-14 Phase I		2019	AAC Inc. / Hauppage, NY	SS / FFP	NAWCTSD	Jan 2019	Mar 2019	1	247,000.00	Y		Oct 2018
1.107) NASMP - CASE FI - Integration in TOFTS 1-3, 5-7, 12-14 Phase II		2019	AAC Inc. / Hauppage, NY	SS / FFP	NAWCTSD	Aug 2019	Nov 2019	1	196,000.00	Y		Oct 2018
1.108) NASMP - CASE MH-60R TOFT Integration Manned Flight Simulator (MFS)		2017	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Apr 2017	Sep 2020	1	821,000.00	Y		
1.109) NASMP - CASE Data Set		2016	John Hopkins University / Laurel, MD	SS / FFP	NAVSEA	Jul 2016	Sep 2018	1	700,000.00	Y		Feb 2016
1.111) NASMP - MH-60R/S NGTS Integration		2017	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Jul 2017	Feb 2021	1	6,200K	Y		
1.112) NASMP - Cross Domain Solution (CDS) Upgrades		2019	TBD / TBD	C / FFP	NAWCTSD	Mar 2019	Mar 2020	1	1,000K	Y		Oct 2018

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.112) NASMP - Cross Domain Solution (CDS) Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Mar 2021	1	1,500K	Y		Oct 2018
1.114) NASMP - E-2D Hawkeye Integrated Training System (HITS) WIN10 Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Mar 2022	1	24,709K	Y		Jul 2019
1.115) NASMP - Host-Based Security System (HBSS) Upgrades		2018	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Jul 2018	Jul 2020	1	1,108K	Y		Jan 2018
1.117) NASMP - E-6B OFT/IAT Trainer Tech Refresh		2020	Fidelity Technologies Corp / Reading, PA	C / FFP	NAWCTSD	Mar 2020	Nov 2021	1	1,320K	Y		Jan 2018
1.119) NASMP - MH-53 - CCLPT/ Operational Flt Trng (OFT)/ASRM Upgs		2020	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Mar 2020	Mar 2021	1	547,000.00	Y		
1.122) NASMP - Navy Aviation Distributed Training Center (NADTC) 2.0		2017	Aero Simulation, Inc. / Tampa, FL	C / FFP	NAWCTSD	Jun 2017	Aug 2017	1	3,819K	Y		Mar 2017
1.123) NASMP - NADTC & Distributed Mission Training (DMT) Enablers Upgrades		2019	TBD / TBD	C / TBD	NAWCTSD	Jun 2019	Jun 2021	1	2,600K	Y		Mar 2019
1.123) NASMP - NADTC & Distributed Mission Training (DMT) Enablers Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Mar 2022	1	13,136K	Y		Jul 2019
1.124) NASMP - NADTC Secure Video Teleconference Brief/Debrief Upgrade		2016	Alion Science and Tech Corp / Burr Ridge, IL	C / FFP	DTIC	Jun 2018	May 2019	1	510,000.00	Y		Mar 2018
1.125) NASMP - FA-18 IOS-BDS-MOC Stores Management Fidelity Upgrades (17)		2018	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Aug 2018	Aug 2020	1	5,235K	Y		Nov 2017
1.126) NASMP - FA-18 IOS-BDS-MOC Ownship Fidelity Upgrades		2020	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Mar 2020	Mar 2022	1	10,218K	Y		Feb 2018
1.127) NASMP - FA-18 IOS-BDS-MOC Targets/Maps Fidelity Upgrades		2019	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Mar 2019	Mar 2021	1	6,271K	Y		Feb 2018
1.128) NASMP - FA-18 Common IOS-BDS-MOC Console & Displays Fidelity Upgrades		2020	L3 Communications / Arlington, TX	C / FFP	NAWCTSD	Mar 2020	Mar 2022	1	10,427K	Y		Feb 2018
1.129) NASMP - FA-18 Host Computer Tech Refresh		2020	L3 Communications / Arlington, TX	SS / FFP	NAWCTSD	Mar 2020	Mar 2020	1	309,000.00	Y		Feb 2018
1.130) NASMP - FA/EA-18 Windows 10 Upgrades		2019	L-3 Link Simulation & Training / Arlington, TX	SS / FFP	NAWCTSD	Mar 2019	Mar 2020	1	6,700K	Y		Jul 2018
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)(†)		2020	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Mar 2020	Jan 2022	20	1,245K	Y		Jul 2019

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.133) NASMP - P-8A Information Assurance Upgrades		2020	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Mar 2020	Mar 2022	1	2,970K	Y		Jul 2019
1.134) NASMP - CNATRA - T-45 Kingsville 2F138E OFT Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Mar 2022	1	11,731K	Y		Jul 2019
1.135) NASMP - CNATRA - T-45 Pensacola 2F205A OFT Upgrades		2020	TBD / TBD	C / FFP	NAWCTSD	Mar 2020	Mar 2022	2	8,988K	Y		Jul 2019
1.136) NASMP - CNATRA - T-45 VMTS Inst Grnd Stat (IGS) Upgs (18)		2020	Boeing Co. / St. Louis, MO	SS / FFP	NAWCTSD	Mar 2020	Mar 2022	1	3,000K	Y		Jul 2019
1.141) LVC - Next Generation Threat System Upgrades		2016	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Mar 2016	Jun 2018	1	2,148K	Y		
1.141) LVC - Next Generation Threat System Upgrades		2018	NAWCAD / Patuxent River, MD	PO	NAWCAD PAX	Apr 2018	Nov 2018	1	200,000.00	Y		

(†) indicates the presence of a P-21

Footnotes:

(20) MIPR to AF as the Program Manager with Army PEO STRI acting as Contracting Officer located at NAWCTSD.

Exhibit P-21, Production Schedule: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** OTHER FLIGHT TRAINING

Items (Units in Each)							Fiscal Year 2014												Fiscal Year 2015												BALANCE
										Calendar Year 2014												Calendar Year 2015									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)																															
	22	2014	NAVY	2	0	2																									2
	22	2015	NAVY	3	0	3																									3
	22	2018	NAVY	2	0	2																									2
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)																															
	23	2013	NAVY	1	0	1		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	23	2014	NAVY	2	0	2																								A -	2
	24	2015	NAVY	1	0	1															A -	-	-	-	-	-	-	-	-	-	1
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)																															
	25	2013	NAVY	2	0	2		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	25	2015	NAVY	1	0	1															A -	-	-	-	-	-	-	-	-	-	1
	26	2017	NAVY	1	0	1																									1
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)																															
	27	2020	NAVY	20	0	20																									20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Items (Units in Each)							Fiscal Year 2016												Fiscal Year 2017												BALANCE
							Calendar Year 2016												Calendar Year 2017												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)																															
	22	2014	NAVY	2	0	2											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	22	2015	NAVY	3	0	3											A -	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	22	2018	NAVY	2	0	2																									2
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)																															
	23	2013	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	23	2014	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	24	2015	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)																															
	25	2013	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	25	2015	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
	26	2017	NAVY	1	0	1																				A -	-	-	-	-	1
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)																															
	27	2020	NAVY	20	0	20																									20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** OTHER FLIGHT TRAINING

Items (Units in Each)							Fiscal Year 2018												Fiscal Year 2019												BALANCE
							Calendar Year 2018												Calendar Year 2019												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)																															
	22	2014	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
	22	2015	NAVY	3	0	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
	22	2018	NAVY	2	0	2									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)																															
	23	2013	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1								0
	23	2014	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1			0
	24	2015	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1			0
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)																															
	25	2013	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2						0
	25	2015	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0
	26	2017	NAVY	1	0	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)																															
	27	2020	NAVY	20	0	20																									20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0705 / Common Ground Equipment | **Aggregated Items:** OTHER FLIGHT TRAINING

Items (Units in Each)							Fiscal Year 2020												Fiscal Year 2021												BALANCE
										Calendar Year 2020												Calendar Year 2021									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2019	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)																															
	22	2014	NAVY	2	0	2	-	-	-	1	-	-	1																		0
	22	2015	NAVY	3	0	3	-	-	-	-	-	1	-	-	1	-	-	-	1												0
	22	2018	NAVY	2	0	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)																															
	23	2013	NAVY	1	1	0																									0
	23	2014	NAVY	2	2	0																									0
	24	2015	NAVY	1	1	0																									0
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)																															
	25	2013	NAVY	2	2	0																									0
	25	2015	NAVY	1	1	0																									0
	26	2017	NAVY	1	0	1	-	-	1																						0
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)																															
	27	2020	NAVY	20	0	20						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0705 / Common Ground Equipment	Aggregated Items: OTHER FLIGHT TRAINING

Items (Units in Each)							Fiscal Year 2022												Fiscal Year 2023												BALANCE
							Calendar Year 2022												Calendar Year 2023												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2021	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Hardware																															
1.30) USMC Fed Sim -Marine Common Aircrew Trainer (MCAT)																															
	22	2014	NAVY	2	2	0																									0
	22	2015	NAVY	3	3	0																									0
	22	2018	NAVY	2	0	2	-	-	-	1	-	-	1																		0
1.71) NASMP - MH-60S Aircrew Virtual Environment Trainer (AVET)																															
	23	2013	NAVY	1	1	0																									0
	23	2014	NAVY	2	2	0																									0
	24	2015	NAVY	1	1	0																									0
1.76) NASMP - MH-60R Naval Aircrew Training Systems (NATS)																															
	25	2013	NAVY	2	2	0																									0
	25	2015	NAVY	1	1	0																									0
	26	2017	NAVY	1	1	0																									0
1.131) NASMP - FA-18 - Low Cost Trainer (LCT)																															
	27	2020	NAVY	20	0	20	-	-	-	2	2	2	2	2	2	2	2	2	2												0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0705 / Common Ground Equipment	**Aggregated Items:** OTHER FLIGHT TRAINING

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2020	1-8-5 For 2020	MAX For 2020	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Kratos Technology - San Diego, CA	1	1	3	0	12	41	53	0	9	43	52
2	BSC Partners - Binghampton, NY	1	1	3	0	0	63	63	0	2	45	47
3	BSC Partners* - Binghampton, NY	1	1	3	0	0	0	0	0	2	55	57
4	BSC Partners - Binghampton, NY	1	1	3	0	0	65	65	0	2	57	59
5	BSC Partners - Binghampton,NY	1	1	3	0	0	0	0	0	2	31	33
6	Boeing Co. - St. Louis, MO			TBD	0	2	22	24	0	2	21	23

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

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0715 / Aircraft Industrial Facilities

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 *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	1,100.358	25.076	24.496	71.335	0.000	71.335	62.944	63.627	58.070	54.459	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,100.358	25.076	24.496	71.335	0.000	71.335	62.944	63.627	58.070	54.459	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,100.358**	**25.076**	**24.496**	**71.335**	**0.000**	**71.335**	**62.944**	**63.627**	**58.070**	**54.459**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Calibration Equipment Description:
The objective of the Metrology/Calibration (METCAL) Program is to maintain required accuracy and consistency in Navy measurements. This ensures the required measurement accuracy of Test and Measurement Systems (TAMS) and Aviation Support Equipment (SE) used to test, repair and maintain Aviation Weapon Systems is adequate. Calibration is an on-cycle maintenance action and can be described as the comparison of a measurement device/system of unverified/unknown accuracy (TAMS or SE) to a device of known and greater accuracy (Calibration Standard).

Fleet Readiness Centers (FRC) Support Equipment (SE)/Industrial Equipment Description:
The Objective of the FRC SE/Industrial Equipment Investment program is to increase Ready Basic Aircraft (RBA). The purchase of equipment for the Fleet Readiness Centers will increase the agility, capability, and capacity to perform the critical mission of repair, overhaul and modification of aircraft, engines, and components while maintaining the organic industrial capacity to meet current and future requirements.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0715 / Aircraft Industrial Facilities

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) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)	Quantity / Total Cost (Each) I ($ M)
P-40a	Aircraft Industrial Facilities	P-5a			- / 616.626	- / 25.076	- / 24.496	- / 28.827	- / -	- / 28.827
P-40a	FRC SE/Industrial Equipment	P-5a			- / 483.732	- / -	- / -	- / 42.508	- / -	- / 42.508
P-40	**Total Gross/Weapon System Cost**				**- / 1,100.358**	**- / 25.076**	**- / 24.496**	**- / 71.335**	**- / 0.000**	**- / 71.335**

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

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

Justification:

Calibration Equipment:

Funds are used to procure Calibration Standards (CALSTDs) and ancillary equipment for Aviation Fleet Intermediate Calibration Activities, Fleet Training Activities, Aviation Navy Calibration Laboratories (NCLs), and the Navy Primary Standards Laboratory (NPSL). CALSTDs procured for Fleet 'I' level use are to replace obsolete and/or irreparable equipment, expand technical measurement capabilities to decrease Depot support costs, reduce out-of-service turn around times, provide enhanced forward deployed geographic support and reduce/control the Naval Air Systems Command (NAVAIR) cost of ownership associated with Calibration. Fleet 'I' level calibration activities support 70% of the total Fleet calibration workload. Maintenance of Fleet calibration capability through this funding results in the release of more expensive Depot level support man-hours for more complex calibration maintenance and calibrations where economy of scale costs dictate single site or geographic calibration center capability. CALSTDs procured for NCLs and the NPSL allow for the automation and improvement of calibration procedures in order to reduce Fleet asset out-of-service and Turn around Time, expand technical calibration capabilities for enhanced in-theater Fleet support, and replace obsolete and high support cost CALSTDs.

FRC SE/Industrial Equipment:

There are 71,000 pieces of equipment at the three industrial FRC sites. 59% are greater than 15 years old and 39% are greater than 25 years old. Capital equipment at the industrial FRCs average more than 25 years in age compared to its 10-year depreciation life. The APN-7 funding will be used to purchase the equipment necessary to support 4th and 5th generation aircraft and component depot level repairs.

Funding will be used to purchase capital equipment, non-capital equipment, and tooling, replacing obsolete and/or irreparable equipment, expanding technical capabilities decreasing Depot support costs, and reducing out-of-service turnaround times. Equipment investment is an essential element of the 10 to 15-year infrastructure optimization plan in development. The equipment investment plan will move the Depots from an analog to digital infrastructure allowing for increased automation and improvement of procedures increasing capability and production throughput. This funding will help bring the Commander, Fleet Readiness Centers industrial FRC budgets more in-line with the Navy's six percent reinvestment requirement.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0715 / Aircraft Industrial Facilities	**Aggregated Items Title:** Aircraft Industrial Facilities

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Aircraft Industrial Facilities																				
1.1) Automated / Interface CALSTDs (1)(†)	A		15,942.70	890	14.189	2,976.38	127	0.378	3,024.59	122	0.369	3,246.03	126	0.409	-	-	-	3,246.03	126	0.409
1.2) Low Frequency AC/DC CALSTDs (2)(†)	A		57,733.24	2,088	120.547	10,795.87	436	4.707	10,770.49	427	4.599	10,737.25	510	5.476	-	-	-	10,737.25	510	5.476
1.3) Other CALSTDs Procurement (3)(†)	A		20,195.69	1,022	20.640	6,105.26	114	0.696	6,648.15	108	0.718	6,259.84	127	0.795	-	-	-	6,259.84	127	0.795
1.4) Physical Dimen / Optical CALSTDs (4)(†)	A		100,479.34	1,646	165.389	33,258.06	248	8.248	29,316.67	240	7.036	31,490.20	255	8.030	-	-	-	31,490.20	255	8.030
1.5) RF / Microwave CALSTDs (5)(†)	A		55,408.55	2,269	125.722	13,702.08	480	6.577	12,971.92	463	6.006	13,116.61	566	7.424	-	-	-	13,116.61	566	7.424
1.6) Res / Impedance CALSTDs (6)(†)	A		41,394.03	1,005	41.601	5,406.06	165	0.892	6,742.14	159	1.072	6,886.36	176	1.212	-	-	-	6,886.36	176	1.212
1.7) Logistics / Engineering Support (7)	A		-	-	50.023	-	-	2.276	-	-	3.352	-	-	3.857	-	-	-	-	-	3.857
1.8) Production / Aquisition (8)	A		-	-	78.515	-	-	1.302	-	-	1.344	-	-	1.624	-	-	-	-	-	1.624
Subtotal: 1) Aircraft Industrial Facilities			**-**	**-**	***616.626***	**-**	**-**	***25.076***	**-**	**-**	***24.496***	**-**	**-**	***28.827***	**-**	**-**	**-**	**-**	**-**	***28.827***
Total			**-**	**-**	**616.626**	**-**	**-**	**25.076**	**-**	**-**	**24.496**	**-**	**-**	**28.827**	**-**	**-**	**-**	**-**	**-**	**28.827**

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

(†) indicates the presence of a P-5a

Footnotes:

(1) Each Cost Element with a Quantity represents a number of different end items. The Unit Cost is an average cost for all the end items in the Cost element. Increase of 4 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(2) Increase of 83 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(3) Increase of 19 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(4) Increase of 15 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(5) Increase of 103 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(6) Increase of 17 units from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to fill fleet operational force Calibration Standards inventory shortages per Type Commander priorities in direct support of CV/ L-class ships and associated squadrons.

(7) Increase from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to provide the additional contract, acquisition, and engineering resources required to procure and field the increased hardware requirements.

(8) Increase from FY19-20 is a result of an across the board Aviation Readiness Recovery initiative to provide the additional contract, acquisition, and engineering resources required to procure and field the increased hardware requirements.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0715 / Aircraft Industrial Facilities	Aggregated Items: Aircraft Industrial Facilities

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Aircraft Industrial Facilities												
1.1) Automated / Interface CALSTDs (1)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	127	2,976.38	Y		
1.1) Automated / Interface CALSTDs (1)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	122	3,024.59	Y		
1.1) Automated / Interface CALSTDs (1)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	126	3,246.03	Y		
1.2) Low Frequency AC/DC CALSTDs (2)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	436	10,795.87	Y		
1.2) Low Frequency AC/DC CALSTDs (2)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	427	10,770.49	Y		
1.2) Low Frequency AC/DC CALSTDs (2)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	510	10,737.25	Y		
1.3) Other CALSTDs Procurement (3)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	114	6,105.26	Y		
1.3) Other CALSTDs Procurement (3)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	108	6,648.15	Y		
1.3) Other CALSTDs Procurement (3)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	127	6,259.84	Y		
1.4) Physical Dimen / Optical CALSTDs (4)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	248	33,258.06	Y		
1.4) Physical Dimen / Optical CALSTDs (4)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	240	29,316.67	Y		
1.4) Physical Dimen / Optical CALSTDs (4)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	255	31,490.20	Y		
1.5) RF / Microwave CALSTDs (5)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	472	12,953.39	Y		
1.5) RF / Microwave CALSTDs (5)	✓	2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	8	57,875.00	Y		
1.5) RF / Microwave CALSTDs (5)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	463	12,971.92	Y		
1.5) RF / Microwave CALSTDs (5)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	566	13,116.61	Y		
1.6) Res / Impedance CALSTDs (6)		2018	Various / Various	C / FP	Multiple	Oct 2017	Oct 2017	165	5,406.06	Y		
1.6) Res / Impedance CALSTDs (6)		2019	Various / Various	C / FP	Multiple	Oct 2018	Oct 2018	159	6,742.14	Y		
1.6) Res / Impedance CALSTDs (6)		2020	Various / Various	C / FP	Multiple	Oct 2019	Oct 2019	176	6,886.36	Y		

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0715 / Aircraft Industrial Facilities	**Aggregated Items:** Aircraft Industrial Facilities

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0715 / Aircraft Industrial Facilities	Aggregated Items Title: FRC SE/Industrial Equipment

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) FRC group 0204164N																				
1.1) Divestiture Support	A		-	-	483.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) Equipment Purchase (9)(†)	A		-	-	-	-	-	-	-	-	-	1,903K	17	32.353	-	-	-	1,903K	17	32.353
1.3) Equipment Installation (10)	A		-	-	-	-	-	-	-	-	-	-	-	7.663	-	-	-	-	-	7.663
1.4) Acquisition Support (11)	A		-	-	-	-	-	-	-	-	-	-	-	2.492	-	-	-	-	-	2.492
Subtotal: 1) FRC group 0204164N			**-**	**-**	***483.732***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	***42.508***	**-**	**-**	**-**	**-**	**-**	***42.508***
Total			**-**	**-**	**483.732**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**42.508**	**-**	**-**	**-**	**-**	**-**	**42.508**

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

(†) indicates the presence of a P-5a

Footnotes:

(9) Each Cost Element with a Quantity represents a number of different end items. The Unit Cost is an average cost for all the end items in the Cost element. FY20 increase of 17 units to support 4th and 5th generation aircraft and component depot level repairs.

(10) The totals for Cost Element 1.3 (Equipment Installation) are based on historical values pulled from previous years of Capital Investment Program (CIP) procurement of similar types of equipment. Installation cost for equipment projects include minor facilities and utilities modifications and Naval Facilities Engineering Command support costs.

(11) The totals for Cost Element 1.4 (Acquisition Support) are based on historical values pulled from previous years of Capital Investment Program (CIP) procurement of similar types of equipment. The acquisition support costs are based on estimated average fees for the Contracting Administration entities, such as Defense Logistics Agency, for their efforts with contract award and procurement administrative functions.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0715 / Aircraft Industrial Facilities	Aggregated Items: FRC SE/Industrial Equipment

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) FRC group 0204164N												
1.2) Equipment Purchase (9)		2020	Various / Various	C / TBD	Multiple	Oct 2019	Oct 2019	17	1,903K	N	Oct 2019	

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0720 / War Consumables

ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0204164N, 0204161N, 0604329N	**Other Related Program Elements:** 0205633N

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 *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	916.175	39.614	42.108	41.086	0.000	41.086	42.290	43.156	44.063	44.941	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	916.175	39.614	42.108	41.086	0.000	41.086	42.290	43.156	44.063	44.941	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**916.175**	**39.614**	**42.108**	**41.086**	**0.000**	**41.086**	**42.290**	**43.156**	**44.063**	**44.941**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The WAR CONSUMABLES P-1 line item has two subcategories: Common Aircraft Ancillary Equipment (AAE) and Aerial Refueling Stores (ARS). The Common AAE program procures, modifies and upgrades common bomb racks, peculiar bomb racks, missile launchers and related support for USN/USMC platforms. The ARS program procures, modifies, and upgrades aerial refueling stores, External Fuel Tanks (EFT) and related support.

COMMON AIRCRAFT ANCILLARY EQUIPMENT (AAE)
As directed by OPNAVINST 8000.16B (Naval Ordnance Maintenance Management Program (NOMMP), the appropriation provides for procurement of new AAE to replace attrition losses, provides for production engineering support and satisfies commonality policy goals set forth by the Navy's Strike Warfare Master Plan. Specifically, the following equipment is funded as AAE within the War Consumables budget:
- Upgrades, modifications and reliability improvements to common and peculiar bomb rack.
- Upgrades, modifications and reliability improvements to various missile launchers and associated equipment that support the following platforms: F/A-18 A-F, EA-18G, AV-8B, P-3C, EA-6B, AH-1W/Z, UH-1N/Y and MH-60R/S.
- Upgrades, modifications and reliability improvements to Pure Air Generating Systems (PAGS). There are two variants of PAGS, Marotta Pure Air Compression Technology (MPACT)/High Pressure Pure Air Generators (HiPPAG), currently in use as on-board coolant generator for missile launchers carrying infrared (IR) seeking missiles.
- The BRU-55 is an upgrade to the BRU-33 CVER (Canted Vertical), with electronic upgrades, which allows for the carriage and release of two MIL-STD-1760 weapons from a single F/A-18 A-F station. The BRU-55 was developed as part of the Mk-82 JDAM program.
- Digital Improved Triple Ejector Rack (DITER) increases the capability of the existing BRU-42 for the AV-8B by adding a smart carriage capability for weapons such as the Joint Direct Attack Munition (JDAM).
- A Type 2 carriage is required for operation and carriage of the Small Diameter Bomb II (SDB II) weapon on the threshold aircrafts F-35B and F-35C and the objective aircraft F/A-18 E/F for the Department of the Navy (DoN). DoN will be using BRU-61 to support the SDB II warfighter requirements, Initial Operating Capability (IOC), and schoolhouse requirements.
- The LAU-127 is to replace launchers that are beyond capable maintenance (BCM) and are removed from the fleet.

AERIAL REFUELING STORES (ARS)
The ARS program finances Aerial Refueling Systems, EFT and related support. Requirements are determined by an inventory objective, which supports peacetime/wartime needs. Aircraft equipped with the A/A42R-1 Aerial Refueling Stores (ARS) are required for all carrier based tanking missions overhead tanking (primarily recovery focused), strike and yo-yo tanking. Total reliance on the ARS and integration in the

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0720 / War Consumables	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0204164N, 0204161N, 0604329N	**Other Related Program Elements:** 0205633N
Line Item MDAP/MAIS Code: N/A		

F/A-18E/F requires substantial improvements to the existing stores to ensure their viability through 2040. Investigation of major subsystems in pursuit of life cycle cost savings, mitigation of flight safety risk and reliability enhancements have identified a large dollar value return on investment for service life extension, reduction in flight safety risk and areas where reliability improvements can be realized.
- ARS upgrade to the avionics/electrical system
- ARS upgrade to the drogue system
- Replacement of External Fuel Tanks for F/A-18 (A-D variants), required to meet the Fleet Response plan and replace original equipment due to fatigue issues.
- ARS Support Equipment
- External Fuel Tank Support Equipment
- Provides production support, modification, and modernization of ARS and EFT products.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0720 / War Consumables	
ID Code (A=Service Ready, B=Not Service Ready): B	**Program Elements for Code B Items:** 0204164N, 0204161N, 0604329N	**Other Related Program Elements:** 0205633N
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) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	War Consumables	P-5a, P-21			- / 916.175	- / 39.614	- / 42.108	- / 41.086	- / -	- / 41.086
P-40	**Total Gross/Weapon System Cost**				**- / 916.175**	**- / 39.614**	**- / 42.108**	**- / 41.086**	**- / 0.000**	**- / 41.086**

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

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

Justification:
FY 2020 provides funding to procure, modify and/or upgrade bomb racks and missile launchers, BRU-55, BRU-61, and ARS and associated support. FY 2020 procurements support the following platforms: F/A-18 A-F, EA-18G, AV-8B, P-3C, EA-6B, AH-1W/Z, UH-1N/Y, MH-60R/S, F-35B, and F-35C.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0720 / War Consumables	Aggregated Items Title: War Consumables

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Common AAE																				
1.1) Bomb Rack Mod Kits & Install (1)	A		-	-	34.388	-	-	3.915	-	-	5.310	-	-	3.027	-	-	-	-	-	3.027
1.2) Launcher Upgrade & Installation (2)	A		-	-	51.779	-	-	2.912	-	-	8.030	-	-	2.873	-	-	-	-	-	2.873
1.3) LAU-127(†)	A		-	-	-	-	-	-	40,000.00	217	8.680	-	-	-	-	-	-	-	-	-
1.4) LAU-7	A		37,398.00	2,000	74.796	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) Pure Air Generating System MPACT	A		18,395.53	1,163	21.394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6) High Pressure Pure Air Generator HiPPAG	A		43,672.89	1,608	70.226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.7) Common Interface Assembly	A		494.29	2,013	0.995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.8) Rack and Launcher Test Set	A		-	-	2.725	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.9) External Fuel Tanks	A		52,337.50	1,200	62.805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.10) External Fuel Tanks*	A		41,083.33	24	0.986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.11) External Fuel Tank Support Equipment	A		-	-	3.344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.12) BRU-55(†)	A		107,356.67	757	81.269	105,750.00	207	21.890	112,482.98	77	8.661	109,160.71	56	6.113	-	-	-	109,160.71	56	6.113
1.13) Digital ITER	B		73,264.15	159	11.649	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.14) BRU-61 (3)(†)	B		-	-	-	-	-	-	-	-	-	191,632.00	90	17.247	-	-	-	191,632.00	90	17.247
1.15) ILS (4)	A		-	-	14.085	-	-	1.158	-	-	1.184	-	-	2.720	-	-	-	-	-	2.720
1.16) Product Improvement	A		-	-	40.127	-	-	0.981	-	-	1.288	-	-	1.025	-	-	-	-	-	1.025
1.17) Product Engineering	A		-	-	47.263	-	-	1.480	-	-	1.176	-	-	1.473	-	-	-	-	-	1.473
1.18) Various (5)	A		-	-	131.124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Common AAE			**-**	**-**	***648.955***	**-**	**-**	***32.336***	**-**	**-**	***34.329***	**-**	**-**	***34.478***	**-**	**-**	**-**	**-**	**-**	***34.478***
2) Aerial Refueling Stores																				
2.1) External Fuel Tanks	A		41,084.21	190	7.806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) Aerial Refueling Stores (6)	A		-	-	74.830	-	-	5.012	-	-	5.268	-	-	4.668	-	-	-	-	-	4.668
2.3) Product Support	A		-	-	22.624	-	-	2.266	-	-	2.511	-	-	1.940	-	-	-	-	-	1.940

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0720 / War Consumables	**Aggregated Items Title:** War Consumables

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
2.4) Various	A		-	-	161.960	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) Aerial Refueling Stores			**-**	**-**	***267.220***	**-**	**-**	***7.278***	**-**	**-**	***7.779***	**-**	**-**	***6.608***	**-**	**-**	**-**	**-**	**-**	***6.608***
Total			**-**	**-**	**916.175**	**-**	**-**	**39.614**	**-**	**-**	**42.108**	**-**	**-**	**41.086**	**-**	**-**	**-**	**-**	**-**	**41.086**

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

(†) indicates the presence of a P-5a

Footnotes:

(1) Fluctuations in funding from year to year are based on the required modifications and upgrades to support multiple aircraft T/M/S. Additionally, any decrease in funding causes increased requirements in the out years to maintain fleet readiness. The fluctuations in requirements and funding forces the budget line to exceed the OSD standard inflation rate.

(2) Fluctuations in funding from year to year are based on the required modifications and upgrades to support multiple aircraft T/M/S. Additionally, any decrease in funding causes increased requirements in the out years to maintain fleet readiness. The fluctuations in requirements and funding forces the budget line to exceed the OSD standard inflation rate.

(3) FY 2020 increase in BRU-61 to support the SDB II warfighter requirements, Initial Operating Capability (IOC), and schoolhouse requirements.

(4) Fluctuations in funding from year to year are based on the required modifications and upgrades to support multiple aircraft T/M/S. Additionally, any decrease in funding causes increased requirements in the out years to maintain fleet readiness. The fluctuations in requirements and funding forces the budget line to exceed the OSD standard inflation rate.

(5) The amount identified against this cost element reflects total prior year funding associated with equipment no longer procured.

(6) Fluctuations in funding from year to year are based on the required modifications and upgrades to support multiple aircraft T/M/S. Additionally, any decrease in funding causes increased requirements in the out years to maintain fleet readiness. The fluctuations in requirements and funding forces the budget line to exceed the OSD standard inflation rate.

Exhibit P-5a, Procurement History and Planning: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	P-1 Line Item Number / Title: 0720 / War Consumables	Aggregated Items: War Consumables

Item Number / Title [DODIC]	OCO	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost ($)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Common AAE												
1.3) LAU-127(†)		2019 (7)	Marvin Eng. / Inglewood, CA	SS / FFP	NAVAIR	Jun 2019	Dec 2020	217	40,000.00	Y		Jun 2019
1.12) BRU-55(†)		2015	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Apr 2017	Apr 2019	34	106,123.29	Y		Apr 2016
1.12) BRU-55(†)		2016	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Apr 2017	Apr 2019	54	106,123.29	Y		Apr 2016
1.12) BRU-55(†)		2017	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Apr 2017	Apr 2019	219	106,123.29	Y		Apr 2016
1.12) BRU-55(†)		2018	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Nov 2017	Apr 2019	207	105,750.00	Y		Apr 2016
1.12) BRU-55(†)		2019	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Nov 2018	Apr 2020	77	112,482.98	Y		Apr 2016
1.12) BRU-55(†)		2020	ITT (8) / Amityville, NY	SS / FFP	NAVAIR	Nov 2019	Apr 2021	56	109,160.71	Y		Apr 2016
1.14) BRU-61 (3)(†)		2020	Boeing Co. / St. Louis, MO	C / TBD	Eglin AFB	Oct 2019	Feb 2021	90	191,632.00	Y		Oct 2010

(†) indicates the presence of a P-21

Footnotes:

(7) The LAU-127 is to replace launchers that are beyond capable maintenance (BCM) and are removed from the fleet.

(8) Annual Production Rates were updated to reflect more accurate information and delivery schedule was updated accordingly.

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0720 / War Consumables | **Aggregated Items:** War Consumables

Items (Units in Each)							Fiscal Year 2017												Fiscal Year 2018												BALANCE
										Calendar Year 2017												Calendar Year 2018									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Common AAE																															
1.3) LAU-127																															
	28	2019	NAVY	217	0	217																									217
1.12) BRU-55																															
Prior Years Deliveries: 450																															
	29	2015	NAVY	34	0	34							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
	29	2016	NAVY	54	0	54							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	54
	29	2017	NAVY	219	0	219							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	219
	29	2018	NAVY	207	0	207														A -	-	-	-	-	-	-	-	-	-	-	207
	29	2019	NAVY	77	0	77																									77
	29	2020	NAVY	56	0	56																									56
1.14) BRU-61 (3)																															
	30	2020	NAVY	90	0	90																									90
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0720 / War Consumables | **Aggregated Items:** War Consumables

Items (Units in Each)							Fiscal Year 2019												Fiscal Year 2020												BALANCE
							Calendar Year 2019												Calendar Year 2020												
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Common AAE																															
1.3) LAU-127																															
	28	2019	NAVY	217	0	217									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	217
1.12) BRU-55																															
Prior Years Deliveries: 450																															
	29	2015	NAVY	34	0	34	-	-	-	-	-	-	20	14																	0
	29	2016	NAVY	54	0	54	-	-	-	-	-	-	1	-	22	25	6														0
	29	2017	NAVY	219	0	219	-	-	-	-	-	-	3	8	5	7	21	20	20	20	20	20	20	20	20	15					0
	29	2018	NAVY	207	0	207	-	-	-	-	-	-	9	12	15	15	18	18	20	20	20	20	20	20							0
	29	2019	NAVY	77	0	77		A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	35
	29	2020	NAVY	56	0	56														A -	-	-	-	-	-	-	-	-	-	-	56
1.14) BRU-61 (3)																															
	30	2020	NAVY	90	0	90													A -	-	-	-	-	-	-	-	-	-	-	-	90
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy | **Date:** March 2019

Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1 | **P-1 Line Item Number / Title:** 0720 / War Consumables | **Aggregated Items:** War Consumables

Items (Units in Each)							Fiscal Year 2021												Fiscal Year 2022												BALANCE
										Calendar Year 2021												Calendar Year 2022									
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1) Common AAE																															
1.3) LAU-127																															
	28	2019	NAVY	217	0	217	-	-	25	25	25	25	25	25	25	25	17														0
1.12) BRU-55																															
Prior Years Deliveries: 450																															
	29	2015	NAVY	34	34	0																									0
	29	2016	NAVY	54	54	0																									0
	29	2017	NAVY	219	219	0																									0
	29	2018	NAVY	207	207	0																									0
	29	2019	NAVY	77	42	35	6	6	6	6	6	5																			0
	29	2020	NAVY	56	0	56	-	-	-	-	-	-	6	5	5	5	5	5	5	5	5	5	5								0
1.14) BRU-61 (3)																															
	30	2020	NAVY	90	0	90	-	-	-	-	7	7	7	7	7	7	7	8	7	7	7	12									0
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

Exhibit P-21, Production Schedule: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0720 / War Consumables	**Aggregated Items:** War Consumables

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
					Initial				Reorder			
		MSR For 2020	1-8-5 For 2020	MAX For 2020	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Marvin Eng. - Inglewood, CA	120	180	300	18	0	18	18	0	0	0	0
2	ITT (8) - Amityville, NY	60	180	300	0	2	24	26	0	1	17	18
3	Boeing Co. - St. Louis, MO	20	130	240	18	0	16	16	0	0	0	0

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

Footnotes:
(8) Annual Production Rates were updated to reflect more accurate information and delivery schedule was updated accordingly.

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0725 / Other Production Charges

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 *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	205.081	1.463	1.444	0.000	0.000	0.000	21.184	21.607	22.060	22.502	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	205.081	1.463	1.444	0.000	0.000	0.000	21.184	21.607	22.060	22.502	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**205.081**	**1.463**	**1.444**	**0.000**	**0.000**	**0.000**	**21.184**	**21.607**	**22.060**	**22.502**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Other Production Charges line provides funds for miscellaneous production support and testing services, aircraft pods, and instrumentation packages supporting tactical aircrew combat training and mobile sea range systems. The budget request supports the following efforts:

TACTICAL COMBAT TRAINING SYSTEM (TCTS):
The TCTS program will procure fixed, transportable and mobile range equipment for the Navy for both shore-based (aircrew training) and deployable (ship/aircrew training) applications. TCTS instrumentation will transmit and track instrumented exercise participants and events (e.g., weapons engagements), and provide accurate, realistic, and timely exercise feedback. TCTS is building on technology developed for existing tactical training range systems. Increment I procurement primarily acquires airborne instrumentation Participant Subsystems (PS) for F/A-18 and other tactical aircraft via Airborne Subsystems (AS). Beginning in FY 2021, Increment II will procure new PS to include Airborne Subsystem (AS) to provide encryption capability for Fleet training exercises. The program will also procure Peculiar Support Equipment (PSE).

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	**Date:** March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0725 / Other Production Charges

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) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*	Quantity / Total Cost *(Each) I ($ M)*
P-40a	Other Production Charges				- / 205.081	- / 1.463	- / 1.444	- / -	- / -	- / -
P-40	**Total Gross/Weapon System Cost**				**- / 205.081**	**- / 1.463**	**- / 1.444**	**- / 0.000**	**- / 0.000**	**- / 0.000**

*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. Title represents the P-40a Title when only the P-40a Summary/Total is shown.

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

Justification:
FY 2020 reduction due to completion of Increment I procurement efforts.

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2020 Navy		Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N / 07 / 1	**P-1 Line Item Number / Title:** 0725 / Other Production Charges	**Aggregated Items Title:** Other Production Charges

Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Prior Years			FY 2018			FY 2019			FY 2020 Base			FY 2020 OCO			FY 2020 Total		
			Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)	Unit Cost ($)	Qty (Each)	Total Cost ($ M)
1) Tactical Combat Training System																				
1.1) Airborne Subsystem (AS) [1]	A		-	-	96.267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) TCTS Increment I Block Upgrade	A		-	-	9.449	-	-	0.642	-	-	0.575	-	-	-	-	-	-	-	-	-
1.6) Integrated Logistics Support	A		-	-	11.609	-	-	-	-	-	0.029	-	-	-	-	-	-	-	-	-
1.7) Acceptance Test	A		-	-	6.857	-	-	0.235	-	-	0.192	-	-	-	-	-	-	-	-	-
1.8) Production Engineering	A		-	-	4.707	-	-	0.554	-	-	0.615	-	-	-	-	-	-	-	-	-
1.9) Production Support	A		-	-	0.345	-	-	0.032	-	-	0.033	-	-	-	-	-	-	-	-	-
1.10) Non Recurring	A		-	-	75.847	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Tactical Combat Training System			**-**	**-**	***205.081***	**-**	**-**	***1.463***	**-**	**-**	***1.444***	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total			**-**	**-**	**205.081**	**-**	**-**	**1.463**	**-**	**-**	**1.444**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**

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

Footnotes:

[1] Participant Subsystems (PS) for TCTS Increment II was broken down to further define the specific instrumentation form factors required for each aircraft Type/Model/Series. Participant Subsystems (PS) consists of Airborne Subsystem (AS), Internal Mount (IM), Rack Subsystem Internal Mount (RS) and Peculiar Support Equipment (PSE). Changes to quantities and unit costs for procurements beginning in FY21 reflect detailed breakout of form factors, latest cost estimates, and Fleet fielding plan.

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0735 / Special Support Equipment

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

Line Item MDAP/MAIS Code: N/A

Resource Summary	Prior Years	FY 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)*	1,485.610	48.500	49.489	135.740	0.000	135.740	113.182	38.598	66.449	37.165	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	1,485.610	48.500	49.489	135.740	0.000	135.740	113.182	38.598	66.449	37.165	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**1,485.610**	**48.500**	**49.489**	**135.740**	**0.000**	**135.740**	**113.182**	**38.598**	**66.449**	**37.165**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Details of this P-1 item are classified.

Justification:

Justification of this request is provided separately.

This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

THIS PAGE INTENTIONALLY LEFT BLANK

Exhibit P-40, Budget Line Item Justification: PB 2020 Navy	Date: March 2019
Appropriation / Budget Activity / Budget Sub Activity: 1506N: Aircraft Procurement, Navy / BA 07: Aircraft Support Equip & Facilities / BSA 1: Aircraft Support Equip & Facilities	**P-1 Line Item Number / Title:** 0740 / First Destination Transportation

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 *(Units in Each)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost *($ in Millions)*	86.295	1.976	1.951	0.892	0.000	0.892	2.546	2.383	2.019	2.060	Continuing	Continuing
Less PY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) *($ in Millions)*	86.295	1.976	1.951	0.892	0.000	0.892	2.546	2.383	2.019	2.060	Continuing	Continuing
Plus CY Advance Procurement *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority *($ in Millions)*	**86.295**	**1.976**	**1.951**	**0.892**	**0.000**	**0.892**	**2.546**	**2.383**	**2.019**	**2.060**	**Continuing**	**Continuing**
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares *($ in Millions)*	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost *($ in Dollars)*	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This line finances the movement of newly procured equipment and material from the contractor's plant to the initial point of receipt by the Government.

Justification:

The FY 2020 funding request was reduced by $1.009M to account for the availability of prior year execution balances.

FY 2020 funds the First Destination Transportation requirements.

THIS PAGE INTENTIONALLY LEFT BLANK