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**Department of Defense  
Fiscal Year (FY) 2018 Budget Estimates**

May 2017



**Navy**

*Justification Book Volume 3 of 5*

***Other Procurement, Navy***

**BA 3**

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The estimated cost for this report for the Department of Navy (DON) is \$3,102.

The estimated total cost for supporting the DON budget justification material is approximately \$1,142,960 for the 2017 fiscal year. This includes \$76,659 in supplies and \$1,066,301 in labor.

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Navy • Budget Estimates FY 2018 • Procurement

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## **Department of Defense Appropriations Act, 2018**

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### **Other Procurement, Navy**

For procurement, production, and modernization of support equipment and materials not otherwise provided for, Navy ordnance (except ordnance for new aircraft, new ships, and ships authorized for conversion); the purchase of passenger motor vehicles for replacement only; expansion of public and private plants, including the land necessary therefore, and such lands and interests therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway, \$8,497,848,000, to remain available for obligation until September 30, 2020.

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## UNCLASSIFIED

Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation -----	FY 2016 Base + OCO -----	FY 2017 PB Request with CR Adj Base -----	FY 2017 Total PB Requests* with CR Adj Base -----
Other Procurement, Navy	6,585,466	6,471,930	6,689,919
Total Department of the Navy	6,585,466	6,471,930	6,689,919

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Department of the Navy  
FY 2018 President's Budget Request  
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Total Obligational Authority  
(Dollars in Thousands)

Appropriation -----	FY 2017 PB Request with CR Adj OCO -----	FY 2017 Total PB Requests* with CR Adj OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj OCO -----
Other Procurement, Navy	12,186	22,686		22,686
Total Department of the Navy	12,186	22,686		22,686

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation -----	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA -----	FY 2017 Total PB Requests* with CR Adj Base + OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj Base + OCO -----
Other Procurement, Navy	6,484,116	6,712,605		6,712,605
Total Department of the Navy	6,484,116	6,712,605		6,712,605

## UNCLASSIFIED

Department of the Navy  
 FY 2018 President's Budget Request  
 Exhibit P-1 FY 2018 President's Budget Request  
 Total Obligational Authority  
 (Dollars in Thousands)

Appropriation -----	FY 2018 Base -----	FY 2018 OCO -----	FY 2018 Total -----
Other Procurement, Navy	8,277,789	220,059	8,497,848
Total Department of the Navy	8,277,789	220,059	8,497,848

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity -----	FY 2016 Base + OCO -----	FY 2017 PB Request with CR Adj Base -----	FY 2017 Total PB Requests* with CR Adj Base -----
01. Ships Support Equipment	1,942,753	1,878,390	1,948,076
02. Communications & Electronics Equip	2,347,567	2,122,908	2,184,808
03. Aviation Support Equipment	419,644	439,109	439,109
04. Ordnance Support Equipment	852,190	933,565	982,065
05. Civil Engineering Support Equip	55,671	84,345	84,345
06. Supply Support Equipment	247,302	316,609	316,609
07. Personnel & Command Support Equip	444,006	364,275	402,178
08. Spares and Repair Parts	276,333	199,660	199,660
20. Undistributed		133,069	133,069
Total Other Procurement, Navy	6,585,466	6,471,930	6,689,919

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FY 2018 President's Budget Request  
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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity -----	FY 2017 PB Request with CR Adj OCO -----	FY 2017 Total PB Requests* with CR Adj OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj OCO -----
01. Ships Support Equipment				
02. Communications & Electronics Equip	12,000	12,000		12,000
03. Aviation Support Equipment				
04. Ordnance Support Equipment	99,329	104,829		104,829
05. Civil Engineering Support Equip	630	630		630
06. Supply Support Equipment	25	25		25
07. Personnel & Command Support Equip	12,222	17,222		17,222
08. Spares and Repair Parts				
20. Undistributed	-112,020	-112,020		-112,020
Total Other Procurement, Navy	12,186	22,686		22,686

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 Total Obligational Authority  
 (Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity -----	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA -----	FY 2017 Total PB Requests* with CR Adj Base + OCO -----	FY 2017 Less Enacted Div B P.L.114-254** OCO -----	FY 2017 Remaining Req with CR Adj Base + OCO -----
01. Ships Support Equipment	1,878,390	1,948,076		1,948,076
02. Communications & Electronics Equip	2,134,908	2,196,808		2,196,808
03. Aviation Support Equipment	439,109	439,109		439,109
04. Ordnance Support Equipment	1,032,894	1,086,894		1,086,894
05. Civil Engineering Support Equip	84,975	84,975		84,975
06. Supply Support Equipment	316,634	316,634		316,634
07. Personnel & Command Support Equip	376,497	419,400		419,400
08. Spares and Repair Parts	199,660	199,660		199,660
20. Undistributed	21,049	21,049		21,049
Total Other Procurement, Navy	6,484,116	6,712,605		6,712,605

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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity -----	FY 2018 Base -----	FY 2018 OCO -----	FY 2018 Total -----
01. Ships Support Equipment	3,076,818	30,348	3,107,166
02. Communications & Electronics Equip	2,565,260	62,622	2,627,882
03. Aviation Support Equipment	441,542	29,245	470,787
04. Ordnance Support Equipment	929,371	34,406	963,777
05. Civil Engineering Support Equip	99,619	5,136	104,755
06. Supply Support Equipment	510,285	584	510,869
07. Personnel & Command Support Equip	376,329	56,540	432,869
08. Spares and Repair Parts	278,565	1,178	279,743
20. Undistributed			
Total Other Procurement, Navy	8,277,789	220,059	8,497,848



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FY 2018 President's Budget Request  
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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
Budget Activity 01: Ships Support Equipment										
Ship Propulsion Equipment										
1	LM-2500 Gas Turbine	A		4,881						U
2	Allison 501k Gas Turbine	A		5,814						U
3	Surface Power Equipment	A				15,514		15,514		U
4	Hybrid Electric Drive (HED)			29,106		40,132		15,132		U
Generators										
5	Surface Combatant HM&E	A		36,860		29,974		29,974		U
Navigation Equipment										
6	Other Navigation Equipment	A		63,481		63,942		63,942		U
Periscopes										
7	Sub Periscopes & Imaging Equip	A		63,109						U
Other Shipboard Equipment										
8	Sub Periscope, Imaging and Supt Equip Prog	A				136,421		154,421		U
9	DDG Mod	A		421,195		367,766		432,766		U
10	Firefighting Equipment	A		13,983		14,743		14,743		U
11	Command and Control Switchboard	A		2,255		2,140		2,140		U
12	LHA/LHD Midlife	A		11,017		24,939		24,939		U
13	LCC 19/20 Extended Service Life Program	A		8,631						U

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Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ships Support Equipment											
Ship Propulsion Equipment											
1	LM-2500 Gas Turbine	A									U
2	Allison 501k Gas Turbine	A									U
3	Surface Power Equipment	A									U
4	Hybrid Electric Drive (HED)										U
Generators											
5	Surface Combatant HM&E	A									U
Navigation Equipment											
6	Other Navigation Equipment	A									U
Periscopes											
7	Sub Periscopes & Imaging Equip	A									U
Other Shipboard Equipment											
8	Sub Periscope, Imaging and Supt Equip Prog	A									U
9	DDG Mod	A									U
10	Firefighting Equipment	A									U
11	Command and Control Switchboard	A									U
12	LHA/LHD Midlife	A									U
13	LCC 19/20 Extended Service Life Program	A									U

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(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c e
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Budget Activity 01: Ships Support Equipment											
-----											
Ship Propulsion Equipment											
1	LM-2500 Gas Turbine	A									U
2	Allison 501k Gas Turbine	A									U
3	Surface Power Equipment	A		15,514		15,514			15,514		U
4	Hybrid Electric Drive (HED)			40,132		15,132			15,132		U
Generators											
5	Surface Combatant HM&E	A		29,974		29,974			29,974		U
Navigation Equipment											
6	Other Navigation Equipment	A		63,942		63,942			63,942		U
Periscopes											
7	Sub Periscopes & Imaging Equip	A									U
Other Shipboard Equipment											
8	Sub Periscope, Imaging and Supt Equip Prog	A		136,421		154,421			154,421		U
9	DDG Mod	A		367,766		432,766			432,766		U
10	Firefighting Equipment	A		14,743		14,743			14,743		U
11	Command and Control Switchboard	A		2,140		2,140			2,140		U
12	LHA/LHD Midlife	A		24,939		24,939			24,939		U
13	LCC 19/20 Extended Service Life Program	A									U

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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-
Budget Activity 01: Ships Support Equipment									
-----									
Ship Propulsion Equipment									
1	LM-2500 Gas Turbine	A							U
2	Allison 501k Gas Turbine	A							U
3	Surface Power Equipment	A		41,910			41,910		U
4	Hybrid Electric Drive (HED)			6,331			6,331		U
Generators									
5	Surface Combatant HM&E	A		27,392			27,392		U
Navigation Equipment									
6	Other Navigation Equipment	A		65,943			65,943		U
Periscopes									
7	Sub Periscopes & Imaging Equip	A							U
Other Shipboard Equipment									
8	Sub Periscope, Imaging and Supt Equip Prog	A		151,240			151,240		U
9	DDG Mod	A		603,355			603,355		U
10	Firefighting Equipment	A		15,887			15,887		U
11	Command and Control Switchboard	A		2,240			2,240		U
12	LHA/LHD Midlife	A		30,287			30,287		U
13	LCC 19/20 Extended Service Life Program	A							U

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Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-
14	Pollution Control Equipment	B	16,609	20,191	20,191	U
15	Submarine Support Equipment	A	10,498	8,995	8,995	U
16	Virginia Class Support Equipment	A	35,747	66,838	66,838	U
17	LCS Class Support Equipment		39,349	54,823	54,823	U
18	Submarine Batteries		23,072	23,359	23,359	U
19	LPD Class Support Equipment		37,929	40,321	40,321	U
20	DDG 1000 Class Support Equipment	A		33,404	33,404	U
21	Strategic Platform Support Equip	A	18,563	15,836	15,836	U
22	DSSP Equipment	A	8,851	806	806	U
23	CG Modernization	A	99,500			U
24	LCAC	A	15,125	3,090	3,090	U
25	Underwater EOD Programs		51,652	24,350	24,350	U
26	Items Less Than \$5 Million	A	89,349	88,719	88,719	U
27	Chemical Warfare Detectors	A	3,027	2,873	2,873	U
28	Submarine Life Support System	A	7,399	6,043	6,043	U
	Reactor Plant Equipment					
29	Reactor Power Units	A				U
30	Reactor Components	A	296,095	342,158	342,158	U
	Ocean Engineering					
31	Diving and Salvage Equipment	A	15,982	8,973	8,973	U

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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
14	Pollution Control Equipment	B									U
15	Submarine Support Equipment	A									U
16	Virginia Class Support Equipment	A									U
17	LCS Class Support Equipment										U
18	Submarine Batteries										U
19	LPD Class Support Equipment										U
20	DDG 1000 Class Support Equipment	A									U
21	Strategic Platform Support Equip	A									U
22	DSSP Equipment	A									U
23	CG Modernization	A									U
24	LCAC	A									U
25	Underwater EOD Programs										U
26	Items Less Than \$5 Million	A									U
27	Chemical Warfare Detectors	A									U
28	Submarine Life Support System	A									U
	Reactor Plant Equipment										
29	Reactor Power Units	A									U
30	Reactor Components	A									U
	Ocean Engineering										
31	Diving and Salvage Equipment	A									U

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Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
14	Pollution Control Equipment	B		20,191		20,191				20,191	U
15	Submarine Support Equipment	A		8,995		8,995				8,995	U
16	Virginia Class Support Equipment	A		66,838		66,838				66,838	U
17	LCS Class Support Equipment			54,823		54,823				54,823	U
18	Submarine Batteries			23,359		23,359				23,359	U
19	LPD Class Support Equipment			40,321		40,321				40,321	U
20	DDG 1000 Class Support Equipment	A		33,404		33,404				33,404	U
21	Strategic Platform Support Equip	A		15,836		15,836				15,836	U
22	DSSP Equipment	A		806		806				806	U
23	CG Modernization	A									U
24	LCAC	A		3,090		3,090				3,090	U
25	Underwater EOD Programs			24,350		24,350				24,350	U
26	Items Less Than \$5 Million	A		88,719		88,719				88,719	U
27	Chemical Warfare Detectors	A		2,873		2,873				2,873	U
28	Submarine Life Support System	A		6,043		6,043				6,043	U
	Reactor Plant Equipment										
29	Reactor Power Units	A									U
30	Reactor Components	A		342,158		342,158				342,158	U
	Ocean Engineering										
31	Diving and Salvage Equipment	A		8,973		8,973				8,973	U

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Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	-----	-----	-----	-----	-----	-----
14	Pollution Control Equipment	B		17,293			17,293		U
15	Submarine Support Equipment	A		27,990			27,990		U
16	Virginia Class Support Equipment	A		46,610			46,610		U
17	LCS Class Support Equipment			47,955			47,955		U
18	Submarine Batteries			17,594			17,594		U
19	LPD Class Support Equipment			61,908			61,908		U
20	DDG 1000 Class Support Equipment	A							U
21	Strategic Platform Support Equip	A		15,812			15,812		U
22	DSSP Equipment	A		4,178			4,178		U
23	CG Modernization	A		306,050			306,050		U
24	LCAC	A		5,507			5,507		U
25	Underwater EOD Programs			55,922		12,348	68,270		U
26	Items Less Than \$5 Million	A		96,909			96,909		U
27	Chemical Warfare Detectors	A		3,036			3,036		U
28	Submarine Life Support System	A		10,364			10,364		U
	Reactor Plant Equipment								
29	Reactor Power Units	A		324,925			324,925		U
30	Reactor Components	A		534,468			534,468		U
	Ocean Engineering								
31	Diving and Salvage Equipment	A		10,619			10,619		U

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(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-----
	Small Boats					
32	Standard Boats	A	29,982	43,684	55,370	U
	Training Equipment					
33	Other Ships Training Equipment	A	62,358			U
	Production Facilities Equipment					
34	Operating Forces Ipe	A	61,718	75,421	75,421	U
	Other Ship Support					
35	Nuclear Alterations	A	132,625	172,718	172,718	U
36	LCS Common Mission Modules Equipment		23,061	27,840	27,840	U
37	LCS MCM Mission Modules		67,451	57,146	57,146	U
38	LCS ASW Mission Modules			31,952	31,952	U
39	LCS SUW Mission Modules		35,228	22,466	22,466	U
40	LCS In-Service Modernization	A				U
41	Remote Minehunting System (RMS)	A	53,077			U
	Logistic Support					
42	LSD Midlife & Modernization		48,174	10,813	10,813	U
			-----	-----	-----	
	Total Ships Support Equipment		1,942,753	1,878,390	1,948,076	

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Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
	Small Boats										
32	Standard Boats	A									U
	Training Equipment										
33	Other Ships Training Equipment	A									U
	Production Facilities Equipment										
34	Operating Forces Ipe	A									U
	Other Ship Support										
35	Nuclear Alterations	A									U
36	LCS Common Mission Modules Equipment										U
37	LCS MCM Mission Modules										U
38	LCS ASW Mission Modules										U
39	LCS SUW Mission Modules										U
40	LCS In-Service Modernization	A									U
41	Remote Minehunting System (RMS)	A									U
	Logistic Support										
42	LSD Midlife & Modernization										U
	Total Ships Support Equipment										

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Department of the Navy  
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Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
	Small Boats										
32	Standard Boats	A		43,684		55,370			55,370		U
	Training Equipment										
33	Other Ships Training Equipment	A									U
	Production Facilities Equipment										
34	Operating Forces Ipe	A		75,421		75,421			75,421		U
	Other Ship Support										
35	Nuclear Alterations	A		172,718		172,718			172,718		U
36	LCS Common Mission Modules Equipment			27,840		27,840			27,840		U
37	LCS MCM Mission Modules			57,146		57,146			57,146		U
38	LCS ASW Mission Modules			31,952		31,952			31,952		U
39	LCS SUW Mission Modules			22,466		22,466			22,466		U
40	LCS In-Service Modernization	A									U
41	Remote Minehunting System (RMS)	A									U
	Logistic Support										
42	LSD Midlife & Modernization			10,813		10,813			10,813		U
				-----		-----		-----	-----		
	Total Ships Support Equipment			1,878,390		1,948,076			1,948,076		

## UNCLASSIFIED

Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-
	Small Boats								
32	Standard Boats	A		46,094		18,000		64,094	U
	Training Equipment								
33	Other Ships Training Equipment	A							U
	Production Facilities Equipment								
34	Operating Forces Ipe	A		191,541				191,541	U
	Other Ship Support								
35	Nuclear Alterations	A							U
36	LCS Common Mission Modules Equipment			34,666				34,666	U
37	LCS MCM Mission Modules			55,870				55,870	U
38	LCS ASW Mission Modules								U
39	LCS SUW Mission Modules			52,960				52,960	U
40	LCS In-Service Modernization	A		74,426				74,426	U
41	Remote Minehunting System (RMS)	A							U
	Logistic Support								
42	LSD Midlife & Modernization			89,536				89,536	U
				-----		-----		-----	
	Total Ships Support Equipment			3,076,818		30,348		3,107,166	

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c	
			Quantity	Cost	Quantity	Cost	Quantity	Cost		
Budget Activity 02: Communications & Electronics Equip										
Ship Sonars										
43	SPQ-9B Radar	A		19,841		14,363		14,363	U	
44	AN/SQQ-89 Surf ASW Combat System	A		103,241		90,029		90,029	U	
45	SSN Acoustics	A		232,134					U	
46	SSN Acoustic Equipment	A				248,765		288,265	U	
47	Undersea Warfare Support Equipment	A		7,331		7,163		7,163	U	
48	Sonar Switches and Transducers	A		11,781					U	
ASW Electronic Equipment										
49	Submarine Acoustic Warfare System	A		19,718		21,291		21,291	U	
50	SSTD	A		8,396		6,893		6,893	U	
51	Fixed Surveillance System	A		146,968		145,701		145,701	U	
52	SURTASS	A		26,153		36,136		46,136	U	
53	Maritime Patrol and Reconnaissance Force	A		13,725					U	
Electronic Warfare Equipment										
54	AN/SLQ-32	A		259,271		274,892		274,892	U	
Reconnaissance Equipment										
55	Shipboard IW Exploit	A		138,002		170,733		170,733	U	
56	Automated Identification System (AIS)			152		958		958	U	

## UNCLASSIFIED

Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 02: Communications & Electronics Equip											
-----											
Ship Sonars											
43	SPQ-9B Radar	A									U
44	AN/SQQ-89 Surf ASW Combat System	A									U
45	SSN Acoustics	A									U
46	SSN Acoustic Equipment	A									U
47	Undersea Warfare Support Equipment	A									U
48	Sonar Switches and Transducers	A									U
ASW Electronic Equipment											
49	Submarine Acoustic Warfare System	A									U
50	SSTD	A									U
51	Fixed Surveillance System	A									U
52	SURTASS	A									U
53	Maritime Patrol and Reconnaissance Force	A									U
Electronic Warfare Equipment											
54	AN/SLQ-32	A									U
Reconnaissance Equipment											
55	Shipboard IW Exploit	A									U
56	Automated Identification System (AIS)										U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c
Budget Activity 02: Communications & Electronics Equip											
Ship Sonars											
43	SPQ-9B Radar	A		14,363		14,363			14,363		U
44	AN/SQQ-89 Surf ASW Combat System	A		90,029		90,029			90,029		U
45	SSN Acoustics	A									U
46	SSN Acoustic Equipment	A		248,765		288,265			288,265		U
47	Undersea Warfare Support Equipment	A		7,163		7,163			7,163		U
48	Sonar Switches and Transducers	A									U
ASW Electronic Equipment											
49	Submarine Acoustic Warfare System	A		21,291		21,291			21,291		U
50	SSTD	A		6,893		6,893			6,893		U
51	Fixed Surveillance System	A		145,701		145,701			145,701		U
52	SURTASS	A		36,136		46,136			46,136		U
53	Maritime Patrol and Reconnaissance Force	A									U
Electronic Warfare Equipment											
54	AN/SLQ-32	A		274,892		274,892			274,892		U
Reconnaissance Equipment											
55	Shipboard IW Exploit	A		170,733		170,733			170,733		U
56	Automated Identification System (AIS)			958		958			958		U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-
Budget Activity 02: Communications & Electronics Equip									
-----									
Ship Sonars									
43	SPQ-9B Radar	A		30,086			30,086		U
44	AN/SQQ-89 Surf ASW Combat System	A		102,222			102,222		U
45	SSN Acoustics	A							U
46	SSN Acoustic Equipment	A		287,553		43,500	331,053		U
47	Undersea Warfare Support Equipment	A		13,653			13,653		U
48	Sonar Switches and Transducers	A							U
ASW Electronic Equipment									
49	Submarine Acoustic Warfare System	A		21,449			21,449		U
50	SSTD	A		12,867			12,867		U
51	Fixed Surveillance System	A		300,102			300,102		U
52	SURTASS	A		30,180			30,180		U
53	Maritime Patrol and Reconnaissance Force	A							U
Electronic Warfare Equipment									
54	AN/SLQ-32	A		240,433			240,433		U
Reconnaissance Equipment									
55	Shipboard IW Exploit	A		187,007			187,007		U
56	Automated Identification System (AIS)			510			510		U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-----
Submarine Surveillance Equipment						
57	Submarine Support Equipment Prog	A	83,472			U
Other Ship Electronic Equipment						
58	Cooperative Engagement Capability	B	25,695	22,034	22,034	U
59	Trusted Information System (TIS)		284			U
60	Naval Tactical Command Support System (NTCSS)	A	14,416	12,336	12,336	U
61	ATDLS	A	22,169	30,105	30,105	U
62	Navy Command and Control System (NCCS)		4,054	4,556	4,556	U
63	Minesweeping System Replacement	A	21,014	56,675	56,675	U
64	Shallow Water MCM	B		8,875	8,875	U
65	Navstar GPS Receivers (SPACE)	A	11,129	12,752	12,752	U
66	American Forces Radio and TV Service	A	4,240	4,577	4,577	U
67	Strategic Platform Support Equip	A	17,440	8,972	8,972	U
Training Equipment						
68	Other Training Equipment	A	41,314			U
Aviation Electronic Equipment						
69	Matcals	A	10,011			U
70	Ashore ATC Equipment	A		75,068	75,068	U
71	Afloat ATC Equipment	A		33,484	33,484	U
72	Shipboard Air Traffic Control	B	9,346			U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
	Submarine Surveillance Equipment										
57	Submarine Support Equipment Prog	A									U
	Other Ship Electronic Equipment										
58	Cooperative Engagement Capability	B									U
59	Trusted Information System (TIS)										U
60	Naval Tactical Command Support System (NTCSS)	A									U
61	ATDLS	A									U
62	Navy Command and Control System (NCCS)										U
63	Minesweeping System Replacement	A									U
64	Shallow Water MCM	B									U
65	Navstar GPS Receivers (SPACE)	A									U
66	American Forces Radio and TV Service	A									U
67	Strategic Platform Support Equip	A									U
	Training Equipment										
68	Other Training Equipment	A									U
	Aviation Electronic Equipment										
69	Matcals	A									U
70	Ashore ATC Equipment	A									U
71	Afloat ATC Equipment	A									U
72	Shipboard Air Traffic Control	B									U

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Department of the Navy  
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Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c -
Submarine Surveillance Equipment											
57	Submarine Support Equipment Prog	A									U
Other Ship Electronic Equipment											
58	Cooperative Engagement Capability	B		22,034		22,034			22,034		U
59	Trusted Information System (TIS)										U
60	Naval Tactical Command Support System (NTCSS)	A		12,336		12,336			12,336		U
61	ATDLS	A		30,105		30,105			30,105		U
62	Navy Command and Control System (NCCS)			4,556		4,556			4,556		U
63	Minesweeping System Replacement	A		56,675		56,675			56,675		U
64	Shallow Water MCM	B		8,875		8,875			8,875		U
65	Navstar GPS Receivers (SPACE)	A		12,752		12,752			12,752		U
66	American Forces Radio and TV Service	A		4,577		4,577			4,577		U
67	Strategic Platform Support Equip	A		8,972		8,972			8,972		U
Training Equipment											
68	Other Training Equipment	A									U
Aviation Electronic Equipment											
69	Matcals	A									U
70	Ashore ATC Equipment	A		75,068		75,068			75,068		U
71	Afloat ATC Equipment	A		33,484		33,484			33,484		U
72	Shipboard Air Traffic Control	B									U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-
Submarine Surveillance Equipment									
57	Submarine Support Equipment Prog	A							U
Other Ship Electronic Equipment									
58	Cooperative Engagement Capability	B		23,892			23,892		U
59	Trusted Information System (TIS)								U
60	Naval Tactical Command Support System (NTCSS)	A		10,741			10,741		U
61	ATDLS	A		38,016			38,016		U
62	Navy Command and Control System (NCCS)			4,512			4,512		U
63	Minesweeping System Replacement	A		31,531			31,531		U
64	Shallow Water MCM	B		8,796			8,796		U
65	Navstar GPS Receivers (SPACE)	A		15,923			15,923		U
66	American Forces Radio and TV Service	A		2,730			2,730		U
67	Strategic Platform Support Equip	A		6,889			6,889		U
Training Equipment									
68	Other Training Equipment	A							U
Aviation Electronic Equipment									
69	Matcals	A							U
70	Ashore ATC Equipment	A		71,882			71,882		U
71	Afloat ATC Equipment	A		44,611			44,611		U
72	Shipboard Air Traffic Control	B							U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
----	-----	-----	-----	-----	-----	-----
73	Automatic Carrier Landing System	A	21,281			U
74	National Air Space System	B	25,621			U
75	Fleet Air Traffic Control Systems	A	8,249			U
76	Landing Systems	A	11,910			U
77	ID Systems	A	29,676	22,177	22,177	U
78	Naval Mission Planning Systems	A	13,737	14,273	14,273	U
	Other Shore Electronic Equipment					
79	Deployable Joint Command & Control	A	1,314			U
80	Tactical/Mobile C4I Systems	A	13,600	27,927	27,927	U
81	DCGS-N	A	31,809	12,676	12,676	U
82	CANES		274,641	212,030	212,030	U
83	RADIAC	A	6,768	8,092	8,092	U
84	CANES-Intell		28,695	36,013	36,013	U
85	GPETE	A	6,962	6,428	6,428	U
86	MASF		290			U
87	Integ Combat System Test Facility	A	13,614	8,376	8,376	U
88	EMI Control Instrumentation	A	4,175	3,971	3,971	U
89	Items Less Than \$5 Million	A	66,176	58,721	58,721	U
	Shipboard Communications					
90	Shipboard Tactical Communications	A	8,277	17,366	17,366	U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
73	Automatic Carrier Landing System	A									U
74	National Air Space System	B									U
75	Fleet Air Traffic Control Systems	A									U
76	Landing Systems	A									U
77	ID Systems	A									U
78	Naval Mission Planning Systems	A									U
	Other Shore Electronic Equipment										
79	Deployable Joint Command & Control	A									U
80	Tactical/Mobile C4I Systems	A									U
81	DCGS-N	A		12,000		12,000			12,000		U
82	CANES										U
83	RADIAC	A									U
84	CANES-Intell										U
85	GPETE	A									U
86	MASF										U
87	Integ Combat System Test Facility	A									U
88	EMI Control Instrumentation	A									U
89	Items Less Than \$5 Million	A									U
	Shipboard Communications										
90	Shipboard Tactical Communications	A									U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
73	Automatic Carrier Landing System	A									U
74	National Air Space System	B									U
75	Fleet Air Traffic Control Systems	A									U
76	Landing Systems	A									U
77	ID Systems	A		22,177		22,177			22,177		U
78	Naval Mission Planning Systems	A		14,273		14,273			14,273		U
	Other Shore Electronic Equipment										
79	Deployable Joint Command & Control	A									U
80	Tactical/Mobile C4I Systems	A		27,927		27,927			27,927		U
81	DCGS-N	A		24,676		24,676			24,676		U
82	CANES			212,030		212,030			212,030		U
83	RADIAC	A		8,092		8,092			8,092		U
84	CANES-Intell			36,013		36,013			36,013		U
85	GPETE	A		6,428		6,428			6,428		U
86	MASF										U
87	Integ Combat System Test Facility	A		8,376		8,376			8,376		U
88	EMI Control Instrumentation	A		3,971		3,971			3,971		U
89	Items Less Than \$5 Million	A		58,721		58,721			58,721		U
	Shipboard Communications										
90	Shipboard Tactical Communications	A		17,366		17,366			17,366		U

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FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	----
73	Automatic Carrier Landing System	A							U
74	National Air Space System	B							U
75	Fleet Air Traffic Control Systems	A							U
76	Landing Systems	A							U
77	ID Systems	A		21,239			21,239		U
78	Naval Mission Planning Systems	A		11,976		2,550	14,526		U
	Other Shore Electronic Equipment								
79	Deployable Joint Command & Control	A							U
80	Tactical/Mobile C4I Systems	A		32,425		7,900	40,325		U
81	DCGS-N	A		13,790		6,392	20,182		U
82	CANES			322,754			322,754		U
83	RADIAC	A		10,718			10,718		U
84	CANES-Intell			48,028			48,028		U
85	GPETE	A		6,861			6,861		U
86	MASF			8,081			8,081		U
87	Integ Combat System Test Facility	A		5,019			5,019		U
88	EMI Control Instrumentation	A		4,188			4,188		U
89	Items Less Than \$5 Million	A		105,292			105,292		U
	Shipboard Communications								
90	Shipboard Tactical Communications	A		23,695			23,695		U

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Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
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Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
91	Ship Communications Automation	A	121,817	102,479	114,879	U
92	Communications Items Under \$5M	A	17,025	10,403	10,403	U
	Submarine Communications					
93	Submarine Broadcast Support	A	15,485	34,151	34,151	U
94	Submarine Communication Equipment	A	58,037	64,529	64,529	U
	Satellite Communications					
95	Satellite Communications Systems	A	30,892	14,414	14,414	U
96	Navy Multiband Terminal (NMT)		118,142	38,365	38,365	U
	Shore Communications					
97	Joint Communications Support Element (JCSE)	A	4,591	4,156	4,156	U
98	Electrical Power Systems	A	1,246			U
	Cryptographic Equipment					
99	Info Systems Security Program (ISSP)	A	126,237	85,694	85,694	U
100	MIO Intel Exploitation Team	A	970	920	920	U
	Cryptologic Equipment					
101	Cryptologic Communications Equip	A	11,433	21,098	21,098	U
	Other Electronic Support					
102	Navy METOC-2***	A	1,483			U
103	Navy METOC-3***	A	483			U
104	USMC METOC-2***	A	323			U

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

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(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
91	Ship Communications Automation	A									U
92	Communications Items Under \$5M	A									U
	Submarine Communications										
93	Submarine Broadcast Support	A									U
94	Submarine Communication Equipment	A									U
	Satellite Communications										
95	Satellite Communications Systems	A									U
96	Navy Multiband Terminal (NMT)										U
	Shore Communications										
97	Joint Communications Support Element (JCSE)	A									U
98	Electrical Power Systems	A									U
	Cryptographic Equipment										
99	Info Systems Security Program (ISSP)	A									U
100	MIO Intel Exploitation Team	A									U
	Cryptologic Equipment										
101	Cryptologic Communications Equip	A									U
	Other Electronic Support										
102	Navy METOC-2***	A									U
103	Navy METOC-3***	A									U
104	USMC METOC-2***	A									U

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

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity Cost	S e c
91	Ship Communications Automation	A	102,479	114,879		114,879	U
92	Communications Items Under \$5M	A	10,403	10,403		10,403	U
	Submarine Communications						
93	Submarine Broadcast Support	A	34,151	34,151		34,151	U
94	Submarine Communication Equipment	A	64,529	64,529		64,529	U
	Satellite Communications						
95	Satellite Communications Systems	A	14,414	14,414		14,414	U
96	Navy Multiband Terminal (NMT)		38,365	38,365		38,365	U
	Shore Communications						
97	Joint Communications Support Element (JCSE)	A	4,156	4,156		4,156	U
98	Electrical Power Systems	A					U
	Cryptographic Equipment						
99	Info Systems Security Program (ISSP)	A	85,694	85,694		85,694	U
100	MIO Intel Exploitation Team	A	920	920		920	U
	Cryptologic Equipment						
101	Cryptologic Communications Equip	A	21,098	21,098		21,098	U
	Other Electronic Support						
102	Navy METOC-2***	A					U
103	Navy METOC-3***	A					U
104	USMC METOC-2***	A					U

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Department of the Navy  
FY 2018 President's Budget Request  
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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
91	Ship Communications Automation	A		103,990			103,990		U
92	Communications Items Under \$5M	A		18,577			18,577		U
	Submarine Communications								
93	Submarine Broadcast Support	A		29,669			29,669		U
94	Submarine Communication Equipment	A		86,204			86,204		U
	Satellite Communications								
95	Satellite Communications Systems	A		14,654			14,654		U
96	Navy Multiband Terminal (NMT)			69,764			69,764		U
	Shore Communications								
97	Joint Communications Support Element (JCSE)	A		4,256			4,256		U
98	Electrical Power Systems	A							U
	Cryptographic Equipment								
99	Info Systems Security Program (ISSP)	A		89,663			89,663		U
100	MIO Intel Exploitation Team	A		961			961		U
	Cryptologic Equipment								
101	Cryptologic Communications Equip	A		11,287		2,280	13,567		U
	Other Electronic Support								
102	Navy METOC-2***	A							U
103	Navy METOC-3***	A							U
104	USMC METOC-2***	A							U

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Department of the Navy  
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Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
105	USMC METOC-1***	A	323			U
106	Monitoring - Hub***	A	308			U
107	DON UAS Video 5***	A	3,000			U
108	DON Robotics***	A	9,100			U
109	DON ACTS***	A	1,544			U
110	Coast Guard Equipment	A	2,529	32,291	32,291	U
	Drug Interdiction Support					
111	Other Drug Interdiction Support	A	4,507			U
	Total Communications & Electronics Equip		2,347,567	2,122,908	2,184,808	
	Budget Activity 03: Aviation Support Equipment					
	Sonobuoys					
112	Sonobuoys - All Types	A	166,385	162,588	162,588	U
	Aircraft Support Equipment					
113	Weapons Range Support Equipment	A	46,979	58,116	58,116	U
114	Aircraft Support Equipment	A	127,774	120,324	120,324	U
115	Advanced Arresting Gear (AAG)	A				U
116	Meteorological Equipment	A	14,997	29,253	29,253	U
117	DCRS/DPL	A	638	632	632	U
118	Airborne Mine Countermeasures	A	14,098	29,097	29,097	U

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

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
105	USMC METOC-1***	A									U
106	Monitoring - Hub***	A									U
107	DON UAS Video 5***	A									U
108	DON Robotics***	A									U
109	DON ACTS***	A									U
110	Coast Guard Equipment	A									U
	Drug Interdiction Support										
111	Other Drug Interdiction Support	A									U
	Total Communications & Electronics Equip			12,000		12,000				12,000	
Budget Activity 03: Aviation Support Equipment											
-----											
	Sonobuoys										
112	Sonobuoys - All Types	A									U
	Aircraft Support Equipment										
113	Weapons Range Support Equipment	A									U
114	Aircraft Support Equipment	A									U
115	Advanced Arresting Gear (AAG)	A									U
116	Meteorological Equipment	A									U
117	DCRS/DPL	A									U
118	Airborne Mine Countermeasures	A									U

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

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Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
105	USMC METOC-1***	A									U
106	Monitoring - Hub***	A									U
107	DON UAS Video 5***	A									U
108	DON Robotics***	A									U
109	DON ACTS***	A									U
110	Coast Guard Equipment	A		32,291		32,291				32,291	U
	Drug Interdiction Support										
111	Other Drug Interdiction Support	A									U
	Total Communications & Electronics Equip			2,134,908		2,196,808				2,196,808	
Budget Activity 03: Aviation Support Equipment											
	Sonobuoys										
112	Sonobuoys - All Types	A		162,588		162,588				162,588	U
	Aircraft Support Equipment										
113	Weapons Range Support Equipment	A		58,116		58,116				58,116	U
114	Aircraft Support Equipment	A		120,324		120,324				120,324	U
115	Advanced Arresting Gear (AAG)	A									U
116	Meteorological Equipment	A		29,253		29,253				29,253	U
117	DCRS/DPL	A		632		632				632	U
118	Airborne Mine Countermeasures	A		29,097		29,097				29,097	U

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

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FY 2018 President's Budget Request  
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Total Obligational Authority  
(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
105	USMC METOC-1***	A							U
106	Monitoring - Hub***	A							U
107	DON UAS Video 5***	A							U
108	DON Robotics***	A							U
109	DON ACTS***	A							U
110	Coast Guard Equipment	A		36,584			36,584		U
	Drug Interdiction Support								
111	Other Drug Interdiction Support	A							U
	Total Communications & Electronics Equip			2,565,260		62,622	2,627,882		
Budget Activity 03: Aviation Support Equipment									
Sonobuoys									
112	Sonobuoys - All Types	A		173,616			173,616		U
	Aircraft Support Equipment								
113	Weapons Range Support Equipment	A		72,110			72,110		U
114	Aircraft Support Equipment	A		108,482			108,482		U
115	Advanced Arresting Gear (AAG)	A		10,900			10,900		U
116	Meteorological Equipment	A		21,137			21,137		U
117	DCRS/DPL	A		660			660		U
118	Airborne Mine Countermeasures	A		20,605			20,605		U

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Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
119	Aviation Support Equipment	A		48,773		39,099		39,099	U
	Total Aviation Support Equipment			419,644		439,109		439,109	
Budget Activity 04: Ordnance Support Equipment									
Ship Gun System Equipment									
120	Ship Gun Systems Equipment	A		5,300		6,191		6,191	U
Ship Missile Systems Equipment									
121	Ship Missile Support Equipment	A		276,503		320,446		320,446	U
122	Tomahawk Support Equipment	A		71,245		71,046		95,546	U
FBM Support Equipment									
123	Strategic Missile Systems Equip	A		240,677		215,138		215,138	U
ASW Support Equipment									
124	SSN Combat Control Systems	A		96,040		130,715		144,715	U
125	ASW Support Equipment	A		30,189		26,431		36,431	U
Other Ordnance Support Equipment									
126	Explosive Ordnance Disposal Equip	B		22,623		11,821		11,821	U
127	Items Less Than \$5 Million	A		9,906		6,243		6,243	U
Other Expendable Ordnance									
128	Submarine Training Device Mods	A				48,020		48,020	U
129	Training Device Mods	A		99,707					U

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Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
119	Aviation Support Equipment	A									U
	Total Aviation Support Equipment										
	Budget Activity 04: Ordnance Support Equipment										
	Ship Gun System Equipment										
120	Ship Gun Systems Equipment	A									U
	Ship Missile Systems Equipment										
121	Ship Missile Support Equipment	A									U
122	Tomahawk Support Equipment	A									U
	FBM Support Equipment										
123	Strategic Missile Systems Equip	A									U
	ASW Support Equipment										
124	SSN Combat Control Systems	A									U
125	ASW Support Equipment	A									U
	Other Ordnance Support Equipment										
126	Explosive Ordnance Disposal Equip	B		99,329		104,829			104,829		U
127	Items Less Than \$5 Million	A									U
	Other Expendable Ordnance										
128	Submarine Training Device Mods	A									U
129	Training Device Mods	A									U

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Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA Quantity	Cost	FY 2017 Total PB Requests* with CR Adj Base + OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj Base + OCO Quantity	Cost	S e c
119	Aviation Support Equipment	A	39,099		39,099				39,099		U
Total Aviation Support Equipment			439,109		439,109				439,109		
Budget Activity 04: Ordnance Support Equipment											
Ship Gun System Equipment											
120	Ship Gun Systems Equipment	A	6,191		6,191				6,191		U
Ship Missile Systems Equipment											
121	Ship Missile Support Equipment	A	320,446		320,446				320,446		U
122	Tomahawk Support Equipment	A	71,046		95,546				95,546		U
FBM Support Equipment											
123	Strategic Missile Systems Equip	A	215,138		215,138				215,138		U
ASW Support Equipment											
124	SSN Combat Control Systems	A	130,715		144,715				144,715		U
125	ASW Support Equipment	A	26,431		36,431				36,431		U
Other Ordnance Support Equipment											
126	Explosive Ordnance Disposal Equip	B	111,150		116,650				116,650		U
127	Items Less Than \$5 Million	A	6,243		6,243				6,243		U
Other Expendable Ordnance											
128	Submarine Training Device Mods	A	48,020		48,020				48,020		U
129	Training Device Mods	A									U

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Total Obligational Authority  
(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity	Cost	FY 2018 OCO Quantity	Cost	FY 2018 Total Quantity	Cost	S e c
----	-----	-----	-----	-----	-----	-----	-----	-----	-----
119	Aviation Support Equipment	A		34,032		29,245		63,277	U
				-----		-----		-----	
	Total Aviation Support Equipment			441,542		29,245		470,787	
	Budget Activity 04: Ordnance Support Equipment								
	-----								
	Ship Gun System Equipment								
120	Ship Gun Systems Equipment	A		5,277				5,277	U
	Ship Missile Systems Equipment								
121	Ship Missile Support Equipment	A		272,359		2,436		274,795	U
122	Tomahawk Support Equipment	A		73,184				73,184	U
	FBM Support Equipment								
123	Strategic Missile Systems Equip	A		246,221				246,221	U
	ASW Support Equipment								
124	SSN Combat Control Systems	A		129,972				129,972	U
125	ASW Support Equipment	A		23,209				23,209	U
	Other Ordnance Support Equipment								
126	Explosive Ordnance Disposal Equip	B		15,596		31,970		47,566	U
127	Items Less Than \$5 Million	A		5,981				5,981	U
	Other Expendable Ordnance								
128	Submarine Training Device Mods	A		74,550				74,550	U
129	Training Device Mods	A							U

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Total Obligational Authority  
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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO Quantity Cost	FY 2017 PB Request with CR Adj Base Quantity Cost	FY 2017 Total PB Requests* with CR Adj Base Quantity Cost	S e c
----	-----	-----	-----	-----	-----	----
130	Surface Training Equipment	A		97,514	97,514	U
	Total Ordnance Support Equipment		852,190	933,565	982,065	
Budget Activity 05: Civil Engineering Support Equip -----						
Civil Engineering Support Equipment						
131	Passenger Carrying Vehicles	A	2,438	8,853	8,853	U
132	General Purpose Trucks	A	2,493	4,928	4,928	U
133	Construction & Maintenance Equip	A	2,578	18,527	18,527	U
134	Fire Fighting Equipment	A	14,705	13,569	13,569	U
135	Tactical Vehicles	B	2,898	14,917	14,917	U
136	Amphibious Equipment	A	12,517	7,676	7,676	U
137	Pollution Control Equipment	A	3,018	2,321	2,321	U
138	Items Under \$5 Million	A	13,838	12,459	12,459	U
139	Physical Security Vehicles	A	1,186	1,095	1,095	U
	Total Civil Engineering Support Equip		55,671	84,345	84,345	
Budget Activity 06: Supply Support Equipment -----						
Supply Support Equipment						
140	Materials Handling Equipment	A	19,211			U
141	Supply Equipment	A		16,023	16,023	U
142	Other Supply Support Equipment	A	10,469			U

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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO Quantity	Cost	FY 2017 Total PB Requests* with CR Adj OCO Quantity	Cost	FY 2017 Less Enacted Div B P.L.114-254** OCO Quantity	Cost	FY 2017 Remaining Req with CR Adj OCO Quantity	Cost	S e c
----	-----	-----	-----	----	-----	----	-----	----	-----	----	-
130	Surface Training Equipment	A									U
	Total Ordnance Support Equipment			99,329		104,829				104,829	
Budget Activity 05: Civil Engineering Support Equip -----											
Civil Engineering Support Equipment											
131	Passenger Carrying Vehicles	A									U
132	General Purpose Trucks	A									U
133	Construction & Maintenance Equip	A									U
134	Fire Fighting Equipment	A		630		630				630	U
135	Tactical Vehicles	B									U
136	Amphibious Equipment	A									U
137	Pollution Control Equipment	A									U
138	Items Under \$5 Million	A									U
139	Physical Security Vehicles	A									U
	Total Civil Engineering Support Equip			630		630				630	
Budget Activity 06: Supply Support Equipment -----											
Supply Support Equipment											
140	Materials Handling Equipment	A									U
141	Supply Equipment	A									U
142	Other Supply Support Equipment	A									U

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(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA	FY 2017 Total PB Requests* with CR Adj Base + OCO	FY 2017 Less Enacted Div B P.L.114-254** OCO	FY 2017 Remaining Req with CR Adj Base + OCO	Se
Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost
130	Surface Training Equipment	A	97,514	97,514		97,514	U
Total Ordnance Support Equipment			1,032,894	1,086,894		1,086,894	
Budget Activity 05: Civil Engineering Support Equip							
Civil Engineering Support Equipment							
131	Passenger Carrying Vehicles	A	8,853	8,853		8,853	U
132	General Purpose Trucks	A	4,928	4,928		4,928	U
133	Construction & Maintenance Equip	A	18,527	18,527		18,527	U
134	Fire Fighting Equipment	A	14,199	14,199		14,199	U
135	Tactical Vehicles	B	14,917	14,917		14,917	U
136	Amphibious Equipment	A	7,676	7,676		7,676	U
137	Pollution Control Equipment	A	2,321	2,321		2,321	U
138	Items Under \$5 Million	A	12,459	12,459		12,459	U
139	Physical Security Vehicles	A	1,095	1,095		1,095	U
Total Civil Engineering Support Equip			84,975	84,975		84,975	
Budget Activity 06: Supply Support Equipment							
Supply Support Equipment							
140	Materials Handling Equipment	A					U
141	Supply Equipment	A	16,023	16,023		16,023	U
142	Other Supply Support Equipment	A					U

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(Dollars in Thousands)

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Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity Cost	FY 2018 OCO Quantity Cost	FY 2018 Total Quantity Cost	S e c
----	-----	-----	-----	-----	-----	----
130	Surface Training Equipment	A	83,022		83,022	U
	Total Ordnance Support Equipment		929,371	34,406	963,777	
Budget Activity 05: Civil Engineering Support Equip -----						
Civil Engineering Support Equipment						
131	Passenger Carrying Vehicles	A	5,299		5,299	U
132	General Purpose Trucks	A	2,946	496	3,442	U
133	Construction & Maintenance Equip	A	34,970		34,970	U
134	Fire Fighting Equipment	A	2,541	2,304	4,845	U
135	Tactical Vehicles	B	19,699	2,336	22,035	U
136	Amphibious Equipment	A	12,162		12,162	U
137	Pollution Control Equipment	A	2,748		2,748	U
138	Items Under \$5 Million	A	18,084		18,084	U
139	Physical Security Vehicles	A	1,170		1,170	U
	Total Civil Engineering Support Equip		99,619	5,136	104,755	
Budget Activity 06: Supply Support Equipment -----						
Supply Support Equipment						
140	Materials Handling Equipment	A				U
141	Supply Equipment	A	21,797	164	21,961	U
142	Other Supply Support Equipment	A				U

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(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
143	First Destination Transportation	A		5,908		5,115		5,115	U
144	Special Purpose Supply Systems	A		211,714		295,471		295,471	U
	Total Supply Support Equipment			247,302		316,609		316,609	
Budget Activity 07: Personnel & Command Support Equip									
-----									
Training Devices									
145	Training Support Equipment	A		7,468					U
146	Training and Education Equipment	A				9,504		9,504	U
Command Support Equipment									
147	Command Support Equipment	A		29,745		37,180		44,680	U
148	Education Support Equipment	A		3,180					U
149	Medical Support Equipment	A		32,790		4,128		4,128	U
151	Naval MIP Support Equipment	A		4,608		1,925		1,925	U
152	Operating Forces Support Equipment	A		6,607		4,777		21,033	U
153	C4ISR Equipment	A		9,929		9,073		9,073	U
154	Environmental Support Equipment	A		23,009		21,107		21,107	U
155	Physical Security Equipment	A		93,478		100,906		110,203	U
156	Enterprise Information Technology	A		95,094		67,544		67,544	U
Other									
159	Cancelled Account Adjustments	A		17					U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
143	First Destination Transportation	A		25		25				25	U
144	Special Purpose Supply Systems	A									U
	Total Supply Support Equipment			25		25				25	
Budget Activity 07: Personnel & Command Support Equip											
-----											
Training Devices											
145	Training Support Equipment	A									U
146	Training and Education Equipment	A									U
Command Support Equipment											
147	Command Support Equipment	A		10,562		10,562				10,562	U
148	Education Support Equipment	A									U
149	Medical Support Equipment	A				5,000				5,000	U
151	Naval MIP Support Equipment	A									U
152	Operating Forces Support Equipment	A									U
153	C4ISR Equipment	A									U
154	Environmental Support Equipment	A									U
155	Physical Security Equipment	A									U
156	Enterprise Information Technology	A									U
Other											
159	Cancelled Account Adjustments	A									U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Total PB Requests** with CR Adj Base+OCO+SAA		FY 2017 Total PB Requests* with CR Adj Base + OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj Base + OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
143	First Destination Transportation	A		5,140		5,140				5,140	U
144	Special Purpose Supply Systems	A		295,471		295,471				295,471	U
	Total Supply Support Equipment			316,634		316,634				316,634	
Budget Activity 07: Personnel & Command Support Equip											
Training Devices											
145	Training Support Equipment	A									U
146	Training and Education Equipment	A		9,504		9,504				9,504	U
Command Support Equipment											
147	Command Support Equipment	A		47,742		55,242				55,242	U
148	Education Support Equipment	A									U
149	Medical Support Equipment	A		4,128		9,128				9,128	U
151	Naval MIP Support Equipment	A		1,925		1,925				1,925	U
152	Operating Forces Support Equipment	A		4,777		21,033				21,033	U
153	C4ISR Equipment	A		9,073		9,073				9,073	U
154	Environmental Support Equipment	A		21,107		21,107				21,107	U
155	Physical Security Equipment	A		100,906		110,203				110,203	U
156	Enterprise Information Technology	A		67,544		67,544				67,544	U
Other											
159	Cancelled Account Adjustments	A									U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base		FY 2018 OCO		FY 2018 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
143	First Destination Transportation	A		5,572		420		5,992	U
144	Special Purpose Supply Systems	A		482,916				482,916	U
	Total Supply Support Equipment			510,285		584		510,869	
Budget Activity 07: Personnel & Command Support Equip									
-----									
Training Devices									
145	Training Support Equipment	A							U
146	Training and Education Equipment	A		25,624				25,624	U
Command Support Equipment									
147	Command Support Equipment	A		59,076		21,650		80,726	U
148	Education Support Equipment	A							U
149	Medical Support Equipment	A		4,383				4,383	U
151	Naval MIP Support Equipment	A		2,030				2,030	U
152	Operating Forces Support Equipment	A		7,500		15,800		23,300	U
153	C4ISR Equipment	A		4,010				4,010	U
154	Environmental Support Equipment	A		23,644		1,000		24,644	U
155	Physical Security Equipment	A		101,982		15,890		117,872	U
156	Enterprise Information Technology	A		19,789				19,789	U
Other									
159	Cancelled Account Adjustments	A							U

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2016 Base + OCO		FY 2017 PB Request with CR Adj Base		FY 2017 Total PB Requests* with CR Adj Base		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
----	-----	-----	-----	-----	-----	-----	-----	-----	-----
160	Next Generation Enterprise Service	A		104,642		98,216		98,216	U
999	Classified Programs			33,439		9,915		14,765	U
				-----		-----		-----	
	Total Personnel & Command Support Equip			444,006		364,275		402,178	
Budget Activity 08: Spares and Repair Parts									
-----									
Spares and Repair Parts									
161	Spares and Repair Parts	A		276,333		199,660		199,660	U
				-----		-----		-----	
	Total Spares and Repair Parts			276,333		199,660		199,660	
Budget Activity 20: Undistributed									
-----									
Undistributed									
162	Adj to Match Continuing Resolution	A				133,069		133,069	U
				-----		-----		-----	
	Total Undistributed					133,069		133,069	
				-----		-----		-----	
	Total Other Procurement, Navy			6,585,466		6,471,930		6,689,919	

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Department of the Navy  
 FY 2018 President's Budget Request  
 Exhibit P-1 FY 2018 President's Budget Request  
 Total Obligational Authority  
 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 PB Request with CR Adj OCO		FY 2017 Total PB Requests* with CR Adj OCO		FY 2017 Less Enacted Div B P.L.114-254** OCO		FY 2017 Remaining Req with CR Adj OCO		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
160	Next Generation Enterprise Service	A									U
999	Classified Programs			1,660		1,660				1,660	U
				-----		-----		-----		-----	
	Total Personnel & Command Support Equip			12,222		17,222				17,222	
Budget Activity 08: Spares and Repair Parts											
-----											
Spares and Repair Parts											
161	Spares and Repair Parts	A									U
				-----		-----		-----		-----	
	Total Spares and Repair Parts										
Budget Activity 20: Undistributed											
-----											
Undistributed											
162	Adj to Match Continuing Resolution	A		-112,020		-112,020				-112,020	U
				-----		-----		-----		-----	
	Total Undistributed			-112,020		-112,020				-112,020	
				-----		-----		-----		-----	
	Total Other Procurement, Navy			12,186		22,686				22,686	

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Department of the Navy  
 FY 2018 President's Budget Request  
 Exhibit P-1 FY 2018 President's Budget Request  
 Total Obligational Authority  
 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line		Ident	FY 2017	FY 2017	FY 2017	FY 2017		
No	Item Nomenclature	Code	Total	Total	Less Enacted	Remaining Req		
			PB Requests**	PB Requests*	Div B	with CR Adj	S	
			with CR Adj	with CR Adj	P.L.114-254**	Base + OCO	e	
			Base+OCO+SAA	Base + OCO	OCO		c	
			Quantity	Quantity	Quantity	Quantity		
			Cost	Cost	Cost	Cost		
			-----	-----	-----	-----		
160	Next Generation Enterprise Service	A	98,216	98,216		98,216	U	
999	Classified Programs		11,575	16,425		16,425	U	
			-----	-----	-----	-----		
	Total Personnel & Command Support Equip		376,497	419,400		419,400		
Budget Activity 08: Spares and Repair Parts								
-----								
Spares and Repair Parts								
161	Spares and Repair Parts	A	199,660	199,660		199,660	U	
			-----	-----	-----	-----		
	Total Spares and Repair Parts		199,660	199,660		199,660		
Budget Activity 20: Undistributed								
-----								
Undistributed								
162	Adj to Match Continuing Resolution	A	21,049	21,049		21,049	U	
			-----	-----	-----	-----		
	Total Undistributed		21,049	21,049		21,049		
			-----	-----	-----	-----		
	Total Other Procurement, Navy		6,484,116	6,712,605		6,712,605		

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Department of the Navy  
FY 2018 President's Budget Request  
Exhibit P-1 FY 2018 President's Budget Request  
Total Obligational Authority  
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2018 Base Quantity Cost	FY 2018 OCO Quantity Cost	FY 2018 Total Quantity Cost	S e c
160	Next Generation Enterprise Service	A	104,584		104,584	U
999	Classified Programs		23,707	2,200	25,907	U
Total Personnel & Command Support Equip			376,329	56,540	432,869	
Budget Activity 08: Spares and Repair Parts						
Spares and Repair Parts						
161	Spares and Repair Parts	A	278,565	1,178	279,743	U
Total Spares and Repair Parts			278,565	1,178	279,743	
Budget Activity 20: Undistributed						
Undistributed						
162	Adj to Match Continuing Resolution	A				U
Total Undistributed						
Total Other Procurement, Navy			8,277,789	220,059	8,497,848	

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3	01	01	0131	Surface Power Equipment.....	Volume 1 - 7
4	01	01	0140	Hybrid Electric Drive (HED).....	Volume 1 - 17
5	01	02	0200	Surface Combatant HM&E.....	Volume 1 - 19
6	01	06	0670	Other Navigation Equipment.....	Volume 1 - 29
7	01	08	0831	Sub Periscopes & Imaging Equip.....	Volume 1 - 55
8	01	09	0840	Sub Periscope, Imaging and Supt Equip Prog.....	Volume 1 - 57
9	01	09	0900	DDG Mod.....	Volume 1 - 83
10	01	09	0910	Firefighting Equipment.....	Volume 1 - 133
11	01	09	0925	Command and Control Switchboard.....	Volume 1 - 135
12	01	09	0933	LHA/LHD Midlife.....	Volume 1 - 137
13	01	09	0934	LCC 19/20 Extended Service Life Program.....	Volume 1 - 151
14	01	09	0935	Pollution Control Equipment.....	Volume 1 - 153
15	01	09	0941	Submarine Support Equipment.....	Volume 1 - 157
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18	01	09	0945	Submarine Batteries.....	Volume 1 - 187
19	01	09	0946	LPD Class Support Equipment.....	Volume 1 - 189
20	01	09	0947	DDG 1000 Class Support Equipment.....	Volume 1 - 207
21	01	09	0950	Strategic Platform Support Equip.....	Volume 1 - 209
22	01	09	0955	Deep Subm Sys Proj (DSSP) Equip.....	Volume 1 - 211
23	01	09	0960	CG Modernization.....	Volume 1 - 213
24	01	09	0970	LCAC.....	Volume 1 - 237
25	01	09	0977	Underwater EOD Programs.....	Volume 1 - 239
26	01	09	0981	Items less than \$5 Million.....	Volume 1 - 253
27	01	09	0989	Chemical Warfare Detectors.....	Volume 1 - 279
28	01	09	0990	Submarine Life Support System.....	Volume 1 - 281
29	01	10	1010	Reactor Power Units.....	Volume 1 - 283
30	01	10	1020	Reactor Components.....	Volume 1 - 287
31	01	11	1130	Diving and Salvage Equipment.....	Volume 1 - 291
32	01	12	1210	Standard Boats.....	Volume 1 - 297
33	01	13	1320	Other Ships Training Equipment.....	Volume 1 - 307
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40	01	15	1604	LCS In-Service Modernization.....	Volume 1 - 359
41	01	15	1605	Remote Minehunting System (RMS).....	Volume 1 - 363
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53	02	03	2246	Maritime Patrol and Reconnaissance Force.....	Volume 2 - 103
54	02	04	2312	AN/SLQ-32.....	Volume 2 - 105
55	02	05	2360	Shipboard IW Exploit.....	Volume 2 - 127
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57	02	06	2560	Submarine Supt Equip Prog.....	Volume 2 - 153
58	02	07	2606	Cooperative Engagement Capability.....	Volume 2 - 157
59	02	07	2608	Trusted Information System (TIS).....	Volume 2 - 169
60	02	07	2611	Naval Tact Cmd Supt Sys (NTCSS).....	Volume 2 - 171
61	02	07	2614	Adv Tact Data Link Sys (ATDLS).....	Volume 2 - 173
62	02	07	2618	Navy Command and Control System (NCCS).....	Volume 2 - 187
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69	02	09	2815	MATCALs.....	Volume 2 - 211
70	02	09	2820	Ashore ATC Equipment.....	Volume 2 - 213
71	02	09	2830	Afloat ATC Equipment.....	Volume 2 - 237
72	02	09	2831	Shipboard Air Traffic Control.....	Volume 2 - 253
73	02	09	2832	Automatic Carrier Landing System.....	Volume 2 - 255
74	02	09	2840	National Air Space System.....	Volume 2 - 257
75	02	09	2845	Fleet Air Traffic Control Systems.....	Volume 2 - 259
76	02	09	2846	Landing Systems.....	Volume 2 - 261
77	02	09	2851	ID Systems.....	Volume 2 - 263
78	02	09	2876	Naval Mission Planning Systems.....	Volume 2 - 275
79	02	10	2804	Depl JT Cmd & Control (DJC2).....	Volume 2 - 277
80	02	10	2906	Tactical/Mobile C4I Systems.....	Volume 2 - 279
81	02	10	2914	Distributed Common Ground System-Navy (DCGS-N).....	Volume 2 - 289
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88	02	10	2970	EMI Control Instrumentation.....	Volume 2 - 329
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98	02	14	3303	Electrical Power Systems.....	Volume 2 - 439
99	02	15	3415	Info Systems Security Program (ISSP).....	Volume 2 - 441
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115	03	03	4217	Advanced Arresting Gear (AAG).....	Volume 3 - 53
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123	04	04	5358	Strategic Missile Systems Equip.....	Volume 4 - 37
124	04	05	5420	SSN Combat Control Systems.....	Volume 4 - 51
125	04	05	5429	ASW Support Equipment.....	Volume 4 - 69
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151	07	02	8114	Naval MIP Support Equipment.....	Volume 5 - 81
152	07	02	8118	Operating Forces Supt Equip.....	Volume 5 - 83
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Afloat ATC Equipment	2830	71	02	09.....	Volume 2 - 237
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Allison 501K Gas Turbine	0120	2	01	01.....	Volume 1 - 5
American Forces Radio and TV Service (AFRTS)	2666	66	02	07.....	Volume 2 - 205
Amphibious Equipment	6033	136	05	01.....	Volume 5 - 19
Ashore ATC Equipment	2820	70	02	09.....	Volume 2 - 213
Automatic Carrier Landing System	2832	73	02	09.....	Volume 2 - 255
Automatic Identification System (AIS)	2361	56	02	05.....	Volume 2 - 151
Aviation Mine Countermeasures	4248	118	03	03.....	Volume 3 - 63
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C4ISR Equipment	8120	153	07	02.....	Volume 5 - 89
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Command and Control Switchboard	0925	11	01	09.....	Volume 1 - 135
Communications Items under \$5M	3057	92	02	11.....	Volume 2 - 379
Construction & Maint Equip	6024	133	05	01.....	Volume 5 - 5
Cooperative Engagement Capability	2606	58	02	07.....	Volume 2 - 157
Cryptologic Communications Equip	3501	101	02	16.....	Volume 2 - 469
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Deep Subm Sys Proj (DSSP) Equip	0955	22	01	09.....	Volume 1 - 211
Depl JT Cmd & Control (DJC2)	2804	79	02	10.....	Volume 2 - 277
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Fixed Surveillance System	2225	51	02	03.....	Volume 2 - 85
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Joint Communications Support Element (JCSE)	3302	97	02	14.....	Volume 2 - 437

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LCS ASW Mission Modules	1602	38	01	15.....	Volume 1 - 353
LCS Class Support Equipment	0944	17	01	09.....	Volume 1 - 181
LCS Common Mission Modules Equipment	1600	36	01	15.....	Volume 1 - 333
LCS In-Service Modernization	1604	40	01	15.....	Volume 1 - 359
LCS MCM Mission Modules	1601	37	01	15.....	Volume 1 - 341
LCS SUW Mission Modules	1603	39	01	15.....	Volume 1 - 355
LHA/LHD Midlife	0933	12	01	09.....	Volume 1 - 137
LM-2500 Gas Turbine	0110	1	01	01.....	Volume 1 - 1
LPD Class Support Equipment	0946	19	01	09.....	Volume 1 - 189
LSD Midlife & Modernization	1610	42	01	16.....	Volume 1 - 365
Landing Systems	2846	76	02	09.....	Volume 2 - 261
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Maritime Patrol and Reconnaissance Force	2246	53	02	03.....	Volume 2 - 103
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SURTASS	2237	52	02	03.....	Volume 2 - 89
Satellite Communications Systems	3215	95	02	13.....	Volume 2 - 419
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Strategic Platform Support Equip	2676	67	02	07.....	Volume 2 - 207
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Submarine Communication Equipment	3130	94	02	12.....	Volume 2 - 395
Submarine Life Support System	0990	28	01	09.....	Volume 1 - 281
Submarine Support Equipment	0941	15	01	09.....	Volume 1 - 157
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Training Device Mods	5662	129	04	07.....	Volume 4 - 103
Training Support Equipment	8081	145	07	01.....	Volume 5 - 45
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Trusted Information System (TIS)	2608	59	02	07.....	Volume 2 - 169
Undersea Warfare Support Equipment	2176	47	02	02.....	Volume 2 - 63
Underwater EOD Programs	0977	25	01	09.....	Volume 1 - 239
Virginia Class Support Equipment	0942	16	01	09.....	Volume 1 - 171
Weapons Range Support Equipment	4204	113	03	03.....	Volume 3 - 13

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 1: Sonobuoys							<b>P-1 Line Item Number / Title:</b> 4048 / Sonobuoys - All Types					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A				<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,369.959	166.385	162.588	173.616	0.000	173.616	184.299	190.706	195.316	198.918	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	1,369.959	166.385	162.588	173.616	0.000	173.616	184.299	190.706	195.316	198.918	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,369.959</b>	<b>166.385</b>	<b>162.588</b>	<b>173.616</b>	<b>0.000</b>	<b>173.616</b>	<b>184.299</b>	<b>190.706</b>	<b>195.316</b>	<b>198.918</b>	<b>Continuing</b>	<b>Continuing</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<p><b>Description:</b></p> <p>Sonobuoys are air launched expendable, electro-mechanical sensors designed to relay underwater sounds associated with ships and submarines to remote processors. Sonobuoys by type are procured annually to maintain the OPNAV Naval Munitions Requirements Process (NMRP). The NMRP includes annual usage requirements for squadron training, readiness and current operations. Sonobuoys currently support the P-3, P-8 and H-60 platforms.</p> <p>[P5 / Sonobuoys, All Types]: Any increase to sonobuoy unit costs that is greater than inflation is a result of either economies of scale or sonobuoy capability enhancements. See P5 footnotes for details.</p> <p>[P5 / AN/SSQ-36 (BT) QZ001]: The AN/SSQ-36 Bathythermograph (BT) is a bathythermograph sonobuoy used to provide a vertical temperature profile of the ocean with respect to depth. The data is transmitted to aircraft to assist in the selection of hydrophone depths and tactics for localizing and tracking submarines and long-range forecasts of acoustic conditions in the ocean.</p> <p>[P5 / AN/SSQ-53 (DIFAR) QZ002]: The AN/SSQ-53 Directional Frequency Analysis and Recording (DIFAR) is a passive directional sonobuoy which provides acoustic target localization.</p> <p>[P5 / AN/SSQ-62 (DICASS) QZ004]: The AN/SSQ-62 Directional Command Active Sonobuoy System (DICASS) is a commandable, active acoustic directional sonobuoy that provides target bearing and range information.</p> <p>[P5 / AN/SSQ-101 (Multistatic Coherent Receiver) QZ006]: The AN/SSQ-101 Air Deployable Active Receiver (ADAR) is a commandable passive acoustic sonobuoy with a horizontal planar array. It is part of the family of multi-static active sensor systems.</p> <p>[P5 / AN/SSQ-125 (Multistatic Coherent Source) QZ010]: The AN/SSQ-125 Multistatic Active Coherent (MAC) Source is a commandable coherent active search sensor. It is part of the family of multi-static active sensor systems.</p> <p>[P5 / SUS MK84 QZ012]: The MK84 Signal Underwater Sound (SUS) device is an expendable, non-explosive, electro-acoustic device which transmits acoustic tones. The MK84 SUS is used for training and exercise signaling to submarines.</p>												

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 1: Sonobuoys						<b>P-1 Line Item Number / Title:</b> 4048 / Sonobuoys - All Types				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A			<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Sonobuoys, All Types	P-5a, P-21			- / 1,369.959	- / 166.385	- / 162.588	- / 173.616	- / 0.000	- / 173.616
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 1,369.959</b>	<b>- / 166.385</b>	<b>- / 162.588</b>	<b>- / 173.616</b>	<b>- / 0.000</b>	<b>- / 173.616</b>
<small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</small>										
<small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>										

**Justification:**  
 The level of sonobuoy procurement funding enables several facets of the Navy's overall ASW mission readiness. The Air ASW program buys to budget based on actual fleet usage, fleet forecasted usage and best negotiated pricing across all sonobuoy types. This funding profile does not meet minimum inventory requirements for the entire family of air delivered acoustic sensors within the Future Years Defense Program (FYDP). This is the result of an increase in actual expenditures, budget constraints and an increase in the Total Munitions Requirement (TMR). The Air ASW community is migrating from a primarily passive to a more capable Multi-static Active Coherent (MAC) wide area search Concept of Operations (CONOPS). While the transition to MAC requires the procurement of more sophisticated sonobuoys, the resulting wide area search capability is more efficient and effective. The MAC capability provides the foundational Air ASW acoustic search capability for the P-8 Poseidon, and increasing the inventory of MAC sonobuoys is required to support the combatant commander's ASW mission execution requirements. This funding profile allows the Navy to prioritize and meet current operational forward presence requirements while building fleet commander deployment readiness levels in the Anti-Submarine Warfare (ASW) mission area.

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1							P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types						Item Number / Title [DODIC]: 1 / Sonobuoys, All Types								
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:											
Resource Summary				Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
Procurement Quantity <i>(Units in Each)</i>				-			-			-			-			-			-		
Gross/Weapon System Cost <i>(\$ in Millions)</i>				1,369.959			166.385			162.588			173.616			0.000			173.616		
Less PY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Net Procurement (P-1) <i>(\$ in Millions)</i>				1,369.959			166.385			162.588			173.616			0.000			173.616		
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Total Obligation Authority <i>(\$ in Millions)</i>				1,369.959			166.385			162.588			173.616			0.000			173.616		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total				
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)		
Hardware - Sonobuoys (Common) Cost																					
Recurring Cost																					
1.1.1) AN/SSQ-36 (BT) QZ001 <sup>(†)</sup> (1)		626.27	13,606	8.521	591.71	5,818	3.443	623.84	4,944	3.084	705.84	2,369	1.672	-	-	-	705.84	2,369	1.672		
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup> (2)		753.31	372,588	280.674	777.92	134,874	104.921	965.84	71,379	68.941	981.85	74,720	73.364	-	-	-	981.85	74,720	73.364		
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup> (3)		1,617.78	43,587	70.514	1,818.57	9,229	16.784	1,767.72	13,390	23.670	1,898.93	7,746	14.709	-	-	-	1,898.93	7,746	14.709		
Subtotal: Recurring Cost		-	-	359.709	-	-	125.148	-	-	95.695	-	-	89.745	-	-	-	-	-	89.745		
Subtotal: Hardware - Sonobuoys (Common) Cost		-	-	359.709	-	-	125.148	-	-	95.695	-	-	89.745	-	-	-	-	-	89.745		
Hardware - Sonobuoys (Multistatic) Cost																					
Recurring Cost																					
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		3,926.49	23,275	91.389	3,549.20	9,190	32.617	3,613.09	8,961	32.377	3,678.13	9,303	34.218	-	-	-	3,678.13	9,303	34.218		
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†)</sup> (4)		4,484.90	36,313	162.860	-	-	-	5,526.60	4,666	25.787	4,795.37	8,086	38.775	-	-	-	4,795.37	8,086	38.775		
Subtotal: Recurring Cost		-	-	254.249	-	-	32.617	-	-	58.164	-	-	72.993	-	-	-	-	-	72.993		
Subtotal: Hardware - Sonobuoys (Multistatic) Cost		-	-	254.249	-	-	32.617	-	-	58.164	-	-	72.993	-	-	-	-	-	72.993		
Hardware - Sonobuoys (Other) Cost																					
Recurring Cost																					

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1						P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types						Item Number / Title [DODIC]: 1 / Sonobuoys, All Types						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
3.1.1) SUS MK84 QZ012 <sup>(†)</sup>	378.33	10,150	3.840	-	-	-	-	-	-	392.10	5,150	2.019	-	-	-	392.10	5,150	2.019
Subtotal: Recurring Cost	-	-	3.840	-	-	-	-	-	-	-	-	2.019	-	-	-	-	-	2.019
Subtotal: Hardware - Sonobuoys (Other) Cost	-	-	3.840	-	-	-	-	-	-	-	-	2.019	-	-	-	-	-	2.019
Hardware - Acceptance Testing Cost																		
Recurring Cost																		
4.1.1) Common QZ860	-	-	13.820	-	-	3.640	-	-	2.922	-	-	2.552	-	-	-	-	-	2.552
4.1.2) Multistatic QZ860 <sup>(5)</sup>	-	-	8.661	-	-	1.004	-	-	1.776	-	-	2.225	-	-	-	-	-	2.225
4.1.3) Other QZ860	-	-	0.093	-	-	-	-	-	-	-	-	0.058	-	-	-	-	-	0.058
Subtotal: Recurring Cost	-	-	22.574	-	-	4.644	-	-	4.698	-	-	4.835	-	-	-	-	-	4.835
Subtotal: Hardware - Acceptance Testing Cost	-	-	22.574	-	-	4.644	-	-	4.698	-	-	4.835	-	-	-	-	-	4.835
Hardware - Prior Years Cost																		
Non Recurring Cost																		
5.1.1) Prior Years	-	-	708.043	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Non Recurring Cost	-	-	708.043	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Prior Years Cost	-	-	708.043	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Production Engineering Cost																		
6.1) Common QZ830	-	-	13.844	-	-	3.023	-	-	2.517	-	-	2.443	-	-	-	-	-	2.443
6.2) Multistatic QZ830	-	-	7.621	-	-	0.953	-	-	1.514	-	-	1.532	-	-	-	-	-	1.532
6.3) Other QZ830	-	-	0.079	-	-	-	-	-	-	-	-	0.049	-	-	-	-	-	0.049
Subtotal: Support - Production Engineering Cost	-	-	21.544	-	-	3.976	-	-	4.031	-	-	4.024	-	-	-	-	-	4.024
Gross/Weapon System Cost	-	-	1,369.959	-	-	166.385	-	-	162.588	-	-	173.616	-	-	0.000	-	-	173.616
Remarks:																		
[Hardware] Actual quantities between the various sonobuoy types may adjust for Fleet requirements based on the OPNAV Naval Munitions Requirements Process (NMRP). Hardware funds may be realigned to support necessary Engineering Investigations and production Engineering Change Proposals. Any year over year increase to sonobuoy unit costs is a result of either economies of scale or sonobuoy capability enhancements.																		
[Hardware] Sonobuoys under prior subheads are not included in Prior Years amount.																		



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<b>Exhibit P-5, Cost Analysis: FY 2018 Navy</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 1	<b>P-1 Line Item Number / Title:</b> 4048 / Sonobuoys - All Types	<b>Item Number / Title [DODIC]:</b> 1 / Sonobuoys, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<p>(†) indicates the presence of a P-5a</p> <p><b>Footnotes:</b></p> <p>(1) AN/SSQ-36 unit cost increases from FY16 to FY17 and FY17 to FY18 are due to quantity decreases.</p> <p>(2) AN/SSQ-53 unit cost increase after FY16 is due to a quantity decrease.</p> <p>(3) AN/SSQ-62 unit cost increase from FY17 to FY18 is due to a quantity decrease.</p> <p>(4) SONOBUOYS - ALL TYPES are procured annually to maintain the OPNAV Naval Munitions Requirements Process (NMRP). The result of buying zero AN/SSQ-125 in FY16 is a result of buying to budget based on actual fleet usage, fleet forecasted usage, and best negotiated pricing across all sonobuoy types.</p> <p>(5) Multistatic Acceptance Testing cost increase from FY17 to FY18 is due to the associated multistatic hardware (AN/SSQ-125) quantity increase. The Air ASW community is migrating from a primarily passive to a more capable Multi-static Active Coherent (MAC) wide area search Concept of Operations (CONOPS).</p>		

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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1				P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types				Item Number / Title [DODIC]: 1 / Sonobuoys, All Types				
Cost Elements	O C O	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
1.1.1) AN/SSQ-36 (BT) QZ001		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2015	4,500	660.89	Y		Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2014	Dec 2015	2,395	648.68	Y		Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2015	Nov 2016	5,818	591.71	Y		Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2016	Nov 2017	4,944	623.84	Y		Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2017	Nov 2018	2,369	705.84	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2015	110,000	721.73	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Mar 2015	Mar 2016	59,178	796.24	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Feb 2016	Feb 2017	134,874	777.92	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Apr 2017	Apr 2018	71,379	965.84	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Jan 2018	Jan 2019	74,720	981.85	Y		Apr 2013
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup>		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2015	10,000	1,610.80	Y		Apr 2013
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup>		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Mar 2015	Mar 2016	7,573	1,736.83	Y		Apr 2013
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup>		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Feb 2016	Feb 2017	9,229	1,818.57	Y		Apr 2013
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2016	Nov 2017	13,390	1,767.72	Y		Apr 2013
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†)</sup>		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2017	Dec 2018	7,746	1,898.93	Y		Apr 2013
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2015	8,043	3,418.87	Y		Apr 2013
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Apr 2015	Apr 2016	9,146	3,390.23	Y		Apr 2013
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Feb 2016	Feb 2017	9,190	3,549.20	Y		Apr 2013
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Jan 2017	Jan 2018	8,961	3,613.09	Y		Apr 2013
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006 <sup>(†)</sup>		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2017	Dec 2018	9,303	3,678.13	Y		Apr 2013

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<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Navy</b>								<b>Date: May 2017</b>			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 1				<b>P-1 Line Item Number / Title:</b> 4048 / Sonobuoys - All Types				<b>Item Number / Title [DODIC]:</b> 1 / Sonobuoys, All Types			

<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†)</sup>		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2015	9,763	4,209.87	Y		Apr 2013
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†)</sup>		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2014	Dec 2015	19,149	4,161.16	Y		Apr 2013
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Jan 2017	Jan 2018	4,666	5,526.60	Y		Apr 2013
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†)</sup>		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2017	Dec 2018	8,086	4,795.37	Y		Apr 2013
3.1.1) SUS MK84 QZ012		2014	ERAPSCO / Columbia City IN	C / FFP	NAWCAD	Jul 2014	Jul 2014	5,000	392.20	Y		Apr 2013
3.1.1) SUS MK84 QZ012		2015	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Dec 2014	Dec 2014	5,150	364.88	Y		Apr 2013
3.1.1) SUS MK84 QZ012		2018	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2017	Nov 2017	5,150	392.10	Y		Apr 2013

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

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017															
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1										P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types										Item Number / Title [DODIC]: 1 / Sonobuoys, All Types															
Cost Elements <i>(Units in Thousands)</i>							Fiscal Year 2014										Fiscal Year 2015										BALANCE								
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014										Calendar Year 2015																		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP				
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(2)</sup>																																			
Prior Years Deliveries: 203410																																			
	1	2014	NAVY	110.000	.000	110.000														A -	-	-	-	-	-	-	-	-	-	-	-	11.751	12.051	12.251	73.947
	1	2015	NAVY	59.178	.000	59.178																			A -	-	-	-	-	-	-	-	-	59.178	
	1	2016	NAVY	134.874	.000	134.874																											134.874		
	1	2017	NAVY	71.379	.000	71.379																											71.379		
	1	2018	NAVY	74.720	.000	74.720																											74.720		
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(3)</sup>																																			
Prior Years Deliveries: 26014																																			
	2	2014	NAVY	10.000	.000	10.000														A -	-	-	-	-	-	-	-	-	-	-	-	1.067	1.067	1.067	6.799
	2	2015	NAVY	7.573	.000	7.573																			A -	-	-	-	-	-	-	-	-	7.573	
	2	2016	NAVY	9.229	.000	9.229																											9.229		
	2	2017	NAVY	13.390	.000	13.390																											13.390		
	2	2018	NAVY	7.746	.000	7.746																											7.746		
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006																																			
Prior Years Deliveries: 6086																																			
	3	2014	NAVY	8.043	.000	8.043														A -	-	-	-	-	-	-	-	-	-	-	.859	.859	.859	5.466	
	3	2015	NAVY	9.146	.000	9.146																			A -	-	-	-	-	-	-	-	9.146		
	3	2016	NAVY	9.190	.000	9.190																											9.190		
	3	2017	NAVY	8.961	.000	8.961																											8.961		
	3	2018	NAVY	9.303	.000	9.303																											9.303		
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(4)</sup>																																			
Prior Years Deliveries: 7401																																			
	4	2014	NAVY	9.763	.000	9.763														A -	-	-	-	-	-	-	-	-	-	-	1.064	1.064	1.064	6.571	
	4	2015	NAVY	19.149	.000	19.149																			A -	-	-	-	-	-	-	-	19.149		
	4	2017	NAVY	4.666	.000	4.666																											4.666		
	4	2018	NAVY	8.086	.000	8.086																											8.086		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP					

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017											
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1										P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types										Item Number / Title [DODIC]: 1 / Sonobuoys, All Types											
Cost Elements (Units in Thousands)							Fiscal Year 2016										Fiscal Year 2017										B A L A N C E				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 5	BAL D U E A S O F 1 O C T	Calendar Year 2016										Calendar Year 2017														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(2)</sup>																															
Prior Years Deliveries: 203410																															
	1	2014	NAVY	110.000	36.053	73.947	12.751	12.751	12.751	12.051	11.951	11.692																			.000
	1	2015	NAVY	59.178	.000	59.178	-	-	-	-	-	6.000	6.500	6.500	7.000	7.000	7.000	6.500	6.500	6.178											.000
	1	2016	NAVY	134.874	.000	134.874					A -	-	-	-	-	-	-	-	-	-	-	-	14.500	15.100	15.100	15.100	15.100	15.100	15.100	15.100	14.674
	1	2017	NAVY	71.379	.000	71.379																			A -	-	-	-	-	-	71.379
	1	2018	NAVY	74.720	.000	74.720																									74.720
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(3)</sup>																															
Prior Years Deliveries: 26014																															
	2	2014	NAVY	10.000	3.201	6.799	1.167	1.167	1.167	1.167	1.067	1.064																			.000
	2	2015	NAVY	7.573	.000	7.573	-	-	-	-	-	.825	.825	.850	.850	.850	.850	.850	.850	.823											.000
	2	2016	NAVY	9.229	.000	9.229					A -	-	-	-	-	-	-	-	-	-	-	-	.950	1.050	1.050	1.050	1.050	1.050	1.050	1.050	.929
	2	2017	NAVY	13.390	.000	13.390														A -	-	-	-	-	-	-	-	-	-	-	13.390
	2	2018	NAVY	7.746	.000	7.746																									7.746
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006																															
Prior Years Deliveries: 6086																															
	3	2014	NAVY	8.043	2.577	5.466	.959	.959	.959	.870	.870	.849																			.000
	3	2015	NAVY	9.146	.000	9.146	-	-	-	-	-	-	.900	1.000	1.000	1.100	1.100	1.100	1.000	1.000	.946										.000
	3	2016	NAVY	9.190	.000	9.190					A -	-	-	-	-	-	-	-	-	-	-	-	.900	1.000	1.100	1.100	1.100	1.100	1.000	1.000	.890
	3	2017	NAVY	8.961	.000	8.961																A -	-	-	-	-	-	-	-	-	8.961
	3	2018	NAVY	9.303	.000	9.303																									9.303
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(4)</sup>																															
Prior Years Deliveries: 7401																															
	4	2014	NAVY	9.763	3.192	6.571	1.164	1.164	1.064	1.064	1.064	1.051																			.000
	4	2015	NAVY	19.149	.000	19.149	-	-	2.000	2.100	2.200	2.200	2.200	2.200	2.100	2.100	2.049														.000
	4	2017	NAVY	4.666	.000	4.666																A -	-	-	-	-	-	-	-	-	4.666
	4	2018	NAVY	8.086	.000	8.086																									8.086
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017														
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 1										P-1 Line Item Number / Title: 4048 / Sonobuoys - All Types										Item Number / Title [DODIC]: 1 / Sonobuoys, All Types														
Cost Elements (Units in Thousands)							Fiscal Year 2018										Fiscal Year 2019										BALANCE							
OCO	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018										Calendar Year 2019																	
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY		JUN	JUL	AUG	SEP			
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(2)</sup>																																		
Prior Years Deliveries: 203410																																		
	1	2014	NAVY	110.000	110.000	.000																											.000	
	1	2015	NAVY	59.178	59.178	.000																											.000	
	1	2016	NAVY	134.874	120.200	14.674	14.674																											.000
	1	2017	NAVY	71.379	.000	71.379	-	-	-	-	-	-	7.500	8.000	8.000	8.000	8.000	8.000	8.000	8.000	7.879											.000		
	1	2018	NAVY	74.720	.000	74.720				A -	-	-	-	-	-	-	-	-	-	-	-	8.000	8.250	8.500	8.500	8.500	8.500	8.500	8.500	8.250	7.720	.000		
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(3)</sup>																																		
Prior Years Deliveries: 26014																																		
	2	2014	NAVY	10.000	10.000	.000																											.000	
	2	2015	NAVY	7.573	7.573	.000																											.000	
	2	2016	NAVY	9.229	8.300	.929	.929																											.000
	2	2017	NAVY	13.390	.000	13.390	-	1.400	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.490																	.000	
	2	2018	NAVY	7.746	.000	7.746				A -	-	-	-	-	-	-	-	-	-	.800	.900	.900	.900	.900	.900	.900	.900	.900	.800	.746	.000			
2.1.1) AN/SSQ-101 (Multistatic Coherent Receiver) QZ006																																		
Prior Years Deliveries: 6086																																		
	3	2014	NAVY	8.043	8.043	.000																											.000	
	3	2015	NAVY	9.146	9.146	.000																											.000	
	3	2016	NAVY	9.190	8.300	.890	.890																											.000
	3	2017	NAVY	8.961	.000	8.961	-	-	-	.900	1.000	1.000	1.000	1.030	1.031	1.000	1.000	1.000															.000	
	3	2018	NAVY	9.303	.000	9.303				A -	-	-	-	-	-	-	-	-	-	-	1.000	1.050	1.050	1.050	1.050	1.050	1.050	1.050	1.050	.953	.000			
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(4)</sup>																																		
Prior Years Deliveries: 7401																																		
	4	2014	NAVY	9.763	9.763	.000																											.000	
	4	2015	NAVY	19.149	19.149	.000																											.000	
	4	2017	NAVY	4.666	.000	4.666	-	-	-	.400	.500	.500	.600	.600	.600	.500	.500	.466															.000	
	4	2018	NAVY	8.086	.000	8.086				A -	-	-	-	-	-	-	-	-	-	-	.800	.900	.900	.950	.950	.950	.936	.900	.800		.000			
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP				

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Navy								<b>Date:</b> May 2017			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 1					<b>P-1 Line Item Number / Title:</b> 4048 / Sonobuoys - All Types				<b>Item Number / Title [DODIC]:</b> 1 / Sonobuoys, All Types		

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					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	ERAPSCO - Columbia City IN	45,000	62,000	135,000	24	3	12	15	0	0	0	0
2	ERAPSCO - Columbia City IN	7,000	26,000	67,000	24	1	12	13	0	0	0	0
3	ERAPSCO - Columbia City IN	2,000	8,000	12,500	24	5	12	17	0	0	0	0
4	ERAPSCO - Columbia City IN	2,000	7,000	19,500	24	2	12	14	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).

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**Exhibit P-40, Budget Line Item Justification:** FY 2018 Navy **Date:** May 2017

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment	<b>P-1 Line Item Number / Title:</b> 4204 / Weapons Range Support Equipment
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<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
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**Line Item MDAP/MAIS Code:** N/A

Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	538.632	46.979	58.116	72.110	0.000	72.110	63.087	69.448	65.453	65.140	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	538.632	46.979	58.116	72.110	0.000	72.110	63.087	69.448	65.453	65.140	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>538.632</b>	<b>46.979</b>	<b>58.116</b>	<b>72.110</b>	<b>0.000</b>	<b>72.110</b>	<b>63.087</b>	<b>69.448</b>	<b>65.453</b>	<b>65.140</b>	<b>Continuing</b>	<b>Continuing</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	3.180	3.000	5.329	-	5.329	6.974	6.679	5.884	5.199	Continuing	Continuing
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

## Description:

This budget line item provides the resources to implement the Navy Fleet Training Range (FTR) Instrumentation Program Plan. These FTRs provide the primary means of fleet combat readiness training. The plan addresses the following major procurement areas: Electronic Warfare (EW) simulators, Systems Replacement and Modernization (SRAM), and generic systems such as range computer systems, simulation, surveillance systems, Moving Land Targets (MLT) including vehicles, vehicle components, and Engineering Change Proposals to upgrade hardware, Tactical Combat Training System (TCTS), Large Area Tracking Range (LATR), Undersea Warfare Training Range/ Pacific Fleet Portable Antisubmarine Warfare (ASW) Range, and range infrastructure necessary to enable Live Virtual Constructive (LVC) training capability. The integral parts of these major range programs include but are not limited to the following: voice communications, weapons scoring systems, display consoles, radars, tracking subsystems, control/ computation subsystems, display/ debriefing subsystems, processors, HF/ VHF/ UHF receivers, transmitters/ transceivers, multiplexers, intercom circuits, encoding devices, frequency interface control systems, peculiar support equipment, and other specialized equipment.

[P5 / SC004 SRAM - Systems Replacement and Modernization]: The SRAM program provides for the procurement of numerous non-recurring range equipment replacement and modernization efforts that are needed at all Navy training ranges. SRAM procurements replace and modernize economically unmaintainable systems and equipment in order to increase range efficiency. Funding for installation of minor equipment is required in all years for all ranges. Sample procurements include antenna replacement, datalink replacement, electrical generators, and range safety lighting equipment.

[P5 / SC012 OS - Ocean Systems]: Funds the procurement and upgrade of fixed underwater training ranges at Pacific Missile Range Facility (PMRF), Barking Sands, HI and Southern California ASW Range (SOAR), CA, as well portable underwater range systems supporting Forward Deployed Naval Forces (FDNF) in the Pacific. Upgrades include cyber security enhancements, increased range accuracy, and splash detection capabilities. The underwater ranges are used to provide individual and unit level training for basic antisubmarine warfare (ASW) skills. Large exercises such as Composite Training Unit Exercises (COMTUEX), Fleet Exercises (FLEETEX), and Joint Task Force Exercises (JTFX) are conducted in the vicinity of the fixed underwater training ranges. Items procured under this cost element include hydrophones, undersea cable, and shore system electronics. The Undersea Warfare Training Range (USWTR) will provide realistic shallow water ASW training against the diesel submarine threat. USWTR will provide approximately 500 nmi2 of operational range area on each coast. In 2010, the Navy reprioritized the USWTR program, with the East Coast range to be procured before the West Coast range. Per Congressional direction, East Coast USWTR has been broken out separately under cost code SC161. West Coast USWTR is planned for procurement under this cost code outside the current FYDP.

[P5 / SC161 OS - East Coast USWTR]: The purpose of the East Coast USWTR is to establish a shallow-water training range capability on the East Coast. The primary USWTR mission will be to support Fleet readiness through training and tactical development of submarine, surface ship, and aircraft undersea warfare (USW), surface warfare (SUW), and mine warfare (MIW). Secondary missions will include training in shallow water, regional conflict operations involving the naval special warfare (NSW), electronic warfare (EW), and amphibious warfare (AMW) mission/ operational capability areas. Additionally, joint mission areas that may be supported include joint littoral warfare and joint surveillance and warning. Previously subsumed within Ocean Systems, East Coast USWTR has been broken out separately in accordance

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		P-1 Line Item Number / Title: 4204 / Weapons Range 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		
with the FY 2007 Defense Appropriations Act. Items procured under this cost element include hydrophones, undersea cable, and shore system electronics for East Coast USWTR. End result is a single in-water training range.		
[P5 / SC034 LATR Shipboard Rotary Technology Upgrade]: The Large Area Tracking Range (LATR) Shipboard and Rotary Wing Technology Upgrade (LSRTU) will replace obsolete components in the legacy shipboard and rotary wing tracking instrumentation and will deliver enhanced Beyond Line of Sight (BLOS) tracking capability for Large Force Exercise support.		
[P5 / SC132 LATR Navigation Technology Refresh]: Produce and field a Navigation Technology Refresh for Large Area Tracking Range (LATR) Airborne Instrumentation Package-Fixed Wing (AIP-FW) pods to continue training instrumentation support for Large Force Exercises such as COMTUEX and JTFEX. The current AIP-FW pods exhibit tracking anomalies cause by internal navigation system degradation. These pods have been deployed since 1996 and many flight hours have accumulated resulting in stress on the aging internal components. LATR tracks and integrates participating surface and air platforms into an overall training range display for mission feedback. LATR Navigation Technology Refresh will keep LATR operational through the projected sunset date of FY 2030.		
[P5 / SC158 TCTS Ground Subsytem]: The Tactical Combat Training System (TCTS) will procure fixed range instrumentation equipment for both shore-based (aircrew training) and deployable (ship/sub/aircrew training) applications. TCTS instrumentation will transmit exercise scenarios; simulate/stimulate all exercise participants sensors/weapons with the exercise scenario; track all exercise participants and events, e.g., weapons engagements; and provide accurate, realistic, and timely feedback. TCTS is building on technology developed for existing tactical training range systems. TCTS consists of airborne instrumentation called Participant Subsystems and Ground Subsystems. Increment 1 systems have been procured and fielded. Future procurements will be for Increment 2 systems with encrypted communication capability.		
[P5 / SC140 TCTS - Remote Range Unit]: The Tactical Combat Training System (TCTS) will procure fixed, transportable, and mobile range instrumentation equipment for both shore-based (aircrew training) and deployable (ship/sub/aircrew training) applications. TCTS instrumentation will transmit exercise scenarios; simulate/stimulate all exercise participants sensors/weapons with the exercise scenario; track all exercise participants and events, e.g., weapons engagements; and provide accurate, realistic, and timely feedback. TCTS is building on technology developed for existing tactical training range systems. TCTS consists of airborne instrumentation called Participant Subsystems and Ground Subsystems. Increment 1 systems have been procured and fielded. Future procurements will be for Increment 2 systems with encrypted communication capability.		
[P5 / SC105 EW - Threat Presentation]: Threat Presentation includes all the necessary components and elements associated with presenting friendly training event participants with an opposing force (OPFOR) operating environment that replicates the expected enemy order of battle. The capability of a range to recreate any Electronic Combat electronic order of battle requires a range to simulate or emulate basic elements of Electronic Combat such as search, acquisition and tracking radars, anti-aircraft artillery (AAA) systems, surface-to-air missile (SAM) systems, infrared (IR) systems, jammers, coastal threats, airborne simulators, and information warfare/ command and control systems. Individual pieces procured vary from year to year.		
[P5 / SC151 MLT - Moving Land Targets]: The Moving Land Target (MLT) Program will provide Moving Land Target vehicles to train aircrews in the demands of Close Air Support (CAS), Time Sensitive Targeting (TST), Target Identification, and Forward Air Controller (FAC) procedures within a Network Centric Warfighting force. MLT provides aircrews with threat representative targets that provide infrared reactivity, mobility, and realistic radar cross-section targets to meet their combat training needs. The MLT program procures Moving Land Target vehicles, vehicle components, and Engineering Change Proposals to upgrade hardware.		
[P5 / SC711 LVC Range Integration]: Funds Range Live Virtual Constructive (LVC) integration allowing real-time telemetry to be received from new aircraft reaching the fleet. Establish persistent integrated training between AEGIS, CVW, Maritime & UAS training assets by enabling LVC capability with live aircraft on Tactical Training Range (TTR) sites. Effort will modify range infrastructure to provide secure network connectivity to provide robust integrated training capability.		
[P5 / SC158 - TCTS Block Upgrade]: The Tactical Combat Training System (TCTS) will procure fixed range instrumentation equipment for both shore-based (aircrew training) and deployable (ship/sub/aircrew training) applications. TCTS instrumentation will transmit exercise scenarios; simulate/stimulate all exercise participants sensors/weapons with the exercise scenario; track all exercise participants and events, e.g., weapons engagements; and provide accurate, realistic, and timely feedback. TCTS is building on technology developed for existing tactical training range systems. TCTS consists of airborne instrumentation called Participant Subsystems and Ground Subsystems. Increment 1 systems have been procured and fielded. Annual block upgrade software packages will be released to fielded Increment		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		<b>P-1 Line Item Number / Title:</b> 4204 / Weapons Range Support Equipment
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>1 systems to correct system deficiencies. These block upgrades were previously budgeted under SC920, TCTS Non-Recurring. Software block upgrades will deliver the capability to integrate and merge F-35 range participant information with TCTS time-space position information (TSPI) at TCTS ground systems for training exercise display and debrief at multiple Tactical Training Range (TTR) sites.</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						<b>P-1 Line Item Number / Title:</b> 4204 / Weapons Range Support Equipment				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A			<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A										
<b>Exhibits Schedule</b>					<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
<b>Exhibit Type</b>	<b>Title*</b>	<b>Subexhibits</b>	<b>ID CD</b>	<b>MDAP/MAIS Code</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>	<b>Quantity / Total Cost (Each) / (\$ M)</b>
P-5	1 / Weapons Range Support Equipment	P-5a			- / 538.632	- / 46.979	- / 58.116	- / 72.110	- / 0.000	- / 72.110
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 538.632</b>	<b>- / 46.979</b>	<b>- / 58.116</b>	<b>- / 72.110</b>	<b>- / 0.000</b>	<b>- / 72.110</b>
<p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>										
<p><b>Justification:</b></p> <p>Funding is required in FY2018 for Operational forces of the Navy's air, surface, and subsurface units, which are required to be equipped with the latest complex and sophisticated weapon systems to achieve and maintain high standards of fleet readiness. The FTRs must be furnished with training equipment capable of simulating, tracking, displaying, and debriefing the latest combat environments (e.g. electronic warfare). This equipment provides the Navy with the capability to conduct safe fleet training exercises, achieve a high state of readiness, objectively evaluate training effectiveness as well as the strategy and tactics employed, evaluate the performance of equipment, and measure reliability and accuracy of operational systems.</p> <p>The funding increase from FY 2017 to FY 2018 supports the procurement of Portable Undersea Training Range (PUTR) ASW range instrumentation to support FDNF and Submarine Forces located at Okinawa and Guam. The PUTR is a self-contained, portable, undersea training system equipped with multiple- transponders that accurately determine the position of various underwater participants, including submarines, surface ships, unmanned undersea vehicles, weapons and mobile targets. It also supports in-water tracking of weapons deployed by naval aircraft. It provides a robust and portable solution for Fleet ASW training exercises. The increase also supports LATR Navigation Technology Refresh. The current Airborne Instrumentation Package-Fixed Wing (AIP-FW) pods exhibit tracking anomalies caused by internal navigation system degradation. These pods have been deployed since 1996 and many flight hours have accumulated resulting in stress on the aging internal components. LATR Navigation Technology Refresh will keep LATR operational through the projected sunset date of FY 2030.</p>										

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment						Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				538.632		46.979		58.116		72.110		0.000		72.110				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				538.632		46.979		58.116		72.110		0.000		72.110				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				538.632		46.979		58.116		72.110		0.000		72.110				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		3.180		3.000		5.329		-		5.329				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Systems Replacement and Modernization Cost																		
Recurring Cost																		
1.1.1) SC004 SRAM - Systems Replacement and Modernization	-	-	150.991	-	-	9.813	-	-	9.949	-	-	8.408	-	-	-	-	-	8.408
Subtotal: Recurring Cost	-	-	150.991	-	-	9.813	-	-	9.949	-	-	8.408	-	-	-	-	-	8.408
Subtotal: Hardware - Systems Replacement and Modernization Cost	-	-	150.991	-	-	9.813	-	-	9.949	-	-	8.408	-	-	-	-	-	8.408
Hardware - Ocean Systems Cost																		
Recurring Cost																		
2.1.1) SC012 OS - Ocean Systems <sup>(1)</sup>	-	-	63.370	-	-	-	-	-	0.500	-	-	2.485	-	-	-	-	-	2.485
2.1.2) SC161 OS - East Coast USWTR	-	-	92.084	-	-	16.873	-	-	13.609	-	-	13.715	-	-	-	-	-	13.715
Subtotal: Recurring Cost	-	-	155.454	-	-	16.873	-	-	14.109	-	-	16.200	-	-	-	-	-	16.200
Subtotal: Hardware - Ocean Systems Cost	-	-	155.454	-	-	16.873	-	-	14.109	-	-	16.200	-	-	-	-	-	16.200
Hardware - Large Area Tracking Range Cost																		
Recurring Cost																		
3.1.1) SC034 LATR Shipboard Rotary Technology Upgrade <sup>(2)</sup>	-	-	-	-	-	3.308	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment						Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
3.1.2) SC132 LATR Navigation Technology Refresh <sup>(3)</sup>	-	-	-	-	-	-	-	-	-	-	-	11.524	-	-	-	-	-	11.524
Subtotal: Recurring Cost	-	-	-	-	-	3.308	-	-	-	-	-	11.524	-	-	-	-	-	11.524
Subtotal: Hardware - Large Area Tracking Range Cost	-	-	-	-	-	3.308	-	-	-	-	-	11.524	-	-	-	-	-	11.524
Hardware - Tactical Combat Training System Cost																		
Recurring Cost																		
4.1.2) SC140 TCTS - Remote Range Unit	-	-	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Tactical Combat Training System Cost	-	-	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Electronic Warfare Training Equipment Cost																		
Recurring Cost																		
5.1.1) SC105 EW - Threat Presentation <sup>(4)</sup>	-	-	69.263	-	-	7.696	-	-	20.058	-	-	12.532	-	-	-	-	-	12.532
Subtotal: Recurring Cost	-	-	69.263	-	-	7.696	-	-	20.058	-	-	12.532	-	-	-	-	-	12.532
Subtotal: Hardware - Electronic Warfare Training Equipment Cost	-	-	69.263	-	-	7.696	-	-	20.058	-	-	12.532	-	-	-	-	-	12.532
Hardware - Moving Land Targets (PMA208) Cost																		
Recurring Cost																		
6.1.1) SC151 MLT - Moving Land Targets <sup>(1)</sup> <sup>(5)</sup>	132,980.39	102	13.564	116,000.00	2	0.232	102,666.67	3	0.308	106,555.56	18	1.918	-	-	-	106,555.56	18	1.918
6.1.2) SC152 MLT Engineering Change Proposals <sup>(6)</sup>	-	-	-	-	-	-	-	-	0.725	-	-	0.035	-	-	-	-	-	0.035
Subtotal: Recurring Cost	-	-	13.564	-	-	0.232	-	-	1.033	-	-	1.953	-	-	-	-	-	1.953
Subtotal: Hardware - Moving Land Targets (PMA208) Cost	-	-	13.564	-	-	0.232	-	-	1.033	-	-	1.953	-	-	-	-	-	1.953
Hardware - Live-Virtual-Constructive Cost																		
Recurring Cost																		
7.1.1) SC711 LVC Range Integration <sup>(7)</sup>	-	-	-	-	-	-	-	-	-	-	-	5.169	-	-	-	-	-	5.169
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	5.169	-	-	-	-	-	5.169

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment							Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Subtotal: Hardware - Live-Virtual-Constructive Cost	-	-	-	-	-	-	-	-	-	-	-	5.169	-	-	-	-	-	5.169
Software - SC158 TCTS Block Upgrade Cost																		
Recurring Cost																		
8.1.1) SC158 - TCTS Block Upgrade	-	-	3.243	-	-	-	-	-	1.344	-	-	1.368	-	-	-	-	-	1.368
Subtotal: Recurring Cost	-	-	3.243	-	-	-	-	-	1.344	-	-	1.368	-	-	-	-	-	1.368
Subtotal: Software - SC158 TCTS Block Upgrade Cost	-	-	3.243	-	-	-	-	-	1.344	-	-	1.368	-	-	-	-	-	1.368
Support - Integrated Logistics Cost																		
9.1) SC800 SRAM	-	-	1.715	-	-	0.245	-	-	0.290	-	-	0.295	-	-	-	-	-	0.295
9.2) SC800 Ocean Systems <sup>(8)</sup>	-	-	1.767	-	-	0.478	-	-	0.461	-	-	0.490	-	-	-	-	-	0.490
9.3) SC800 LATR	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-	-	-	-
9.4) SC800 TCTS	-	-	1.833	-	-	-	-	-	0.037	-	-	0.037	-	-	-	-	-	0.037
9.5) SC800 EW	-	-	1.522	-	-	0.483	-	-	0.545	-	-	0.150	-	-	-	-	-	0.150
9.6) SC800 Prior Years	-	-	9.317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Integrated Logistics Cost	-	-	16.154	-	-	1.256	-	-	1.333	-	-	0.972	-	-	-	-	-	0.972
Support - Production Support Cost																		
10.1) SC820 Ocean Systems	-	-	4.279	-	-	1.194	-	-	1.485	-	-	1.805	-	-	-	-	-	1.805
10.2) SC820 TCTS	-	-	0.835	-	-	-	-	-	0.201	-	-	0.204	-	-	-	-	-	0.204
10.3) SC820 EW	-	-	0.824	-	-	0.351	-	-	0.115	-	-	0.190	-	-	-	-	-	0.190
Subtotal: Support - Production Support Cost	-	-	5.938	-	-	1.545	-	-	1.801	-	-	2.199	-	-	-	-	-	2.199
Support - Production Engineering Cost																		
11.1) SC831 SRAM	-	-	6.246	-	-	0.816	-	-	1.180	-	-	1.296	-	-	-	-	-	1.296
11.2) SC831 Ocean Systems <sup>(9)</sup>	-	-	20.045	-	-	3.409	-	-	2.623	-	-	3.548	-	-	-	-	-	3.548
11.3) SC831 LATR <sup>(10)</sup>	-	-	-	-	-	0.351	-	-	-	-	-	1.699	-	-	-	-	-	1.699
11.4) SC831 TCTS	-	-	15.775	-	-	-	-	-	2.367	-	-	2.013	-	-	-	-	-	2.013
11.5) SC831 EW	-	-	15.940	-	-	0.982	-	-	1.298	-	-	1.143	-	-	-	-	-	1.143
11.6) SC832 MLT	-	-	0.730	-	-	0.320	-	-	0.412	-	-	0.422	-	-	-	-	-	0.422
11.7) SC831 LVC Range Integration	-	-	-	-	-	-	-	-	-	-	-	0.944	-	-	-	-	-	0.944
11.8) SC831 Prior Years	-	-	58.652	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment							Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Subtotal: Support - Production Engineering Cost	-	-	117.388	-	-	5.878	-	-	7.880	-	-	11.065	-	-	-	-	-	11.065
Support - Acceptance Testing Cost																		
12.1) SC860 SRAM	-	-	1.293	-	-	0.180	-	-	0.225	-	-	0.229	-	-	-	-	-	0.229
12.2) SC860 Ocean Systems	-	-	1.456	-	-	0.198	-	-	0.301	-	-	0.407	-	-	-	-	-	0.407
12.3) SC860 TCTS	-	-	-	-	-	-	-	-	0.083	-	-	0.084	-	-	-	-	-	0.084
12.4) SC860 EW	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5) SC860 Prior Years	-	-	3.543	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Acceptance Testing Cost	-	-	6.492	-	-	0.378	-	-	0.609	-	-	0.720	-	-	-	-	-	0.720
Gross/Weapon System Cost	-	-	538.632	-	-	46.979	-	-	58.116	-	-	72.110	-	-	0.000	-	-	72.110

(†) indicates the presence of a P-5a

**Footnotes:**

(1) The funding increase from FY 2017 to FY 2018 supports the procurement of Portable Undersea Training Range (PUTR) ASW range instrumentation to support FDNF and Submarine Forces located at Okinawa and Guam. The PUTR is a self-contained, portable, undersea training system equipped with multiple- transponders that accurately determine the position of various underwater participants, including submarines, surface ships, unmanned undersea vehicles, weapons and mobile targets. It also supports in-water tracking of weapons deployed by naval aircraft. It provides a robust and portable solution for Fleet ASW training exercises.

(2) Procures various components for LATR Shipboard and Rotary Wing Technology Upgrade.

(3) The funding increase from FY2017 to FY2018 supports LATR Navigation Technology Refresh. The current AIP-FW pods exhibit tracking anomalies cause by internal navigation system degradation. These pods have been deployed since 1996 and many flight hours have accumulated resulting in stress on the aging internal components. LATR Navigation Technology Refresh will keep LATR operational through the projected sunset date of FY 2030.

(4) Fluctuations in funding from year to year reflect U.S. Fleet Forces and OPNAV prioritization of various Electronic Warfare (EW) Threat Presentation devices for use at multiple Tactical Training Range (TTR) sites, including Fallon, NV; Yuma, AZ; SCORE, CA; and MAEWR, VA. FY2017 Procurement includes \$12.5M for Passive Detection System (PDS-1) radar for NAS Fallon previously recorded under SC711 LVC.

(5) SC151 MLT: The unit costs and quantities include not just Vehicles, but also HW kits (ie: weaponization kits, specialty tires/ wheels, GCS, & Protection Kits). Some of the kits are more expensive than others and the kits being procured depend on the operational demand/ requirements of the fleet, therefore the unit costs and quantities vary from year to year.

(6) SC152 MLT ECP: Costs include the procurement of Engineering Change Proposals for critical hardware updates (ie: Information Assurance / Windows)

(7) SC711 LVC Range Integration - Fluctuations in funding reflect Naval Aviation Warfighting Development Center (NAWDC) prioritization of range infrastructure improvements to support LVC capability. Previously titled LVC Fallon. The increase from FY2017 to FY2018 supports building P420 at NAS Fallon, Range Operations Center (ROC), in the procurement of equipment to include communications gear, networking architectures and brief and debriefing capabilities.

(8) SC800 Ocean Systems - The Undersea Warfare Training Range (USWTR) is an approved time phased procurement and associated government support efforts will vary from year to year in order to support a complex Integrated Master Schedule (IMS).



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Exhibit P-5, Cost Analysis: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment	Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<div>(9) SC831 Ocean Systems - The Undersea Warfare Training Range (USWTR) is an approved time phased procurement and associated government support efforts will vary from year to year in order to support a complex Integrated Master Schedule (IMS).</div> <div>(10) Increase from PB17 to the current submission reflects engineering support necessary to procure SC132 LATR Navigation Technology Refresh.</div>		

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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3			P-1 Line Item Number / Title: 4204 / Weapons Range Support Equipment						Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment			
Cost Elements	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
6.1.1) SC151 MLT - Moving Land Targets		2016	Kairos / Sandy, UT	C / FFP	NAVAIR, Patuxent River, MD	Apr 2016	Oct 2016	2	116,000.00	Y		May 2015
6.1.1) SC151 MLT - Moving Land Targets		2017	Kairos / Sandy, UT	C / FFP	NAVAIR, Patuxent River, MD	Aug 2017	Dec 2017	3	102,666.67	Y		May 2016
6.1.1) SC151 MLT - Moving Land Targets		2018	Kairos / Sandy, UT	C / FFP	NAVAIR, Patuxent River, MD	Nov 2017	Dec 2018	18	106,555.56	Y		May 2017

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						
ID Code (A=Service Ready, B=Not Service Ready): B			Program Elements for Code B Items: 0204112N					Other Related Program Elements: 0604512N				
Line Item MDAP/MAIS Code: N/A												
Resource Summary	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	55.195	127.774	120.324	108.482	0.000	108.482	111.122	124.507	121.970	123.549	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	55.195	127.774	120.324	108.482	0.000	108.482	111.122	124.507	121.970	123.549	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	55.195	127.774	120.324	108.482	0.000	108.482	111.122	124.507	121.970	123.549	Continuing	Continuing
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)												
Initial Spares (\$ in Millions)	-	4.323	3.329	4.387	-	4.387	1.470	0.170	0.150	0.127	Continuing	Continuing
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Description: AVIATION SUPPORT EQUIPMENT provides funds for the procurement of air-launched anti-submarine (ASW) detection and other general support equipment associated with aircraft systems. Other support equipment includes ground electronics equipment, aircraft launch and recovery equipment, photographic equipment, reconnaissance and electronic warfare process. The items contained within this budget line item were previously funded under the following line items in FY14 and prior: 4208 Expeditionary Airfields 4214 Aircraft Rearming Equipment 4216 Aircraft Launch and Recovery Equipment 4255 LAMPS MK III Shipboard Equipment  [P5 / Expeditionary Airfields]: This program provides for procurement of aircraft recovery equipment, landing mat and accessories, airfield lighting and Visual Landing Aids for Naval Aviation Expeditionary Airfields (EAF.) EAF recovery equipment consists of the M31 arresting gear and its accessories. This equipment is used to stop aircraft in less than 1000 ft. EAF landing mats and accessories are used to construct airfields of varying configurations such as, 5000+ ft conventional airport runways and taxiways, Forward Arming and Refueling Points (FARPs), Forward Operating Bases (FOBs), Landing Zones (LZs) and Helo Pads. EAF Lighting equipment augments the many types of EAFs with lighting of the runways, taxiways, LZs, FARPs, FOBs and Helo pads. Much of the EAF Lighting utilizes Infra Red Lighting for use with Night Vision Devices for night operations by all Type/Model/Series aircraft. Fresnel Lens Optical Landing Systems and Precision Approach Path Indicator systems are used to guide aircraft to the proper landing or arresting gear area of the EAF. This core funding level directly supports the procurement and fielding of operational EAF systems for three Active Marine Aircraft Wings (MAW) and one Reserve MAW, testing and training installations, and provides assets for use by the Marine Expeditionary Forces during contingency operations.  [P5 - 2 / Acft Rearming Equip]: This program funds the procurement of common Armament Support Equipment (ASE), and Weapons Support Equipment (WSE) under the procurement and inventory control of the Naval Inventory Control Point and the Naval Air Systems Command. This budget line supports: (a) initial outfitting for all in-production weapons systems; (b) procurement of new Support Equipment, and (c) procurement of replacement items for obsolete Support Equipment. These items support sustained operations and surge deployments of the CV battle groups. Shipboard/Shorebased WSE is utilized by weapons departments to handle, transport, and maintain weapons. Shipboard/Shorebased ASE is utilized by squadrons and supporting activities to load and service aircraft weapons and guns.  [P5 - 3 / Air Launch & Recovery Equip]: This program provides for the procurement of aircraft launch, recovery, visual landing aids, and related information systems as well as ancillary items required for installation aboard aircraft carriers, air capable combatant vessels, amphibious assault ships and shore stations. It also provides cyber resiliency within the Aviation Land and Launch Enclave (ALLE) for ALRE. ALRE works jointly through ALLE with PMA-213 Air Traffic and Control (ATC) and Landing System and will enhance network segmentation, device hardening, centralized monitoring, increased cyber situational												

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy		<b>Date:</b> May 2017	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> 0204112N	<b>Other Related Program Elements:</b> 0604512N	
<b>Line Item MDAP/MAIS Code:</b> N/A			
<p>awareness and incident response within the enclave. Procurements are initiated due to a variety of reasons including fleet-generated reports associated with safe and reliable operations of existing equipment, support of fixed and rotary wing aircraft on Air Capable Ships, and maintaining reliability, availability and maintainability of ALRE equipment. Engineering Change Proposals (ECPs) are generated and processed via a Configuration Control Board. Once approved, the ECP final product is a service change kit. These kits are identified for installation aboard applicable ships as well as shore-based installations in the ECP. Major shipboard equipment items are generally installed by shipyard personnel, alteration installation teams or fleet readiness centers voyage repair teams during routine or restricted availabilities of the various ships. Service change kits support corrective actions that result from changes in operational conditions, obsolescence, and improvements in reliability, availability and maintainability.</p> <p>FY14 and prior years funded under Aircraft Support Equipment (BLI 4216).</p> <p>[P3A - 4 / LAMPS MK III - SRQ(KU)-4 (S1010)]: LAMPS MK III, AN/SRQ-4 (Ku), is an over the horizon information dominance system with a high-speed, air-to-ground, digital data link that transmits reconnaissance and other data from MH-60 helicopters to surface ships (cruisers and destroyers) to enable data, imagery, electronic support measures, communications, and radar information via the Ku-band link.</p>			

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B			<b>Program Elements for Code B Items:</b> 0204112N			<b>Other Related Program Elements:</b> 0604512N				
<b>Line Item MDAP/MAIS Code:</b> N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 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	ALRE - Advanced Arresting Gear (SJ301)				- / 3.685	- / 9.655	- / 2.234	- / 0.000	- / 0.000	- / 0.000
P-40a	ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)				- / 0.000	- / 0.000	- / 1.057	- / 4.715	- / 0.000	- / 4.715
P-5	1 / Expeditionary Airfields	P-5a			- / 7.423	- / 8.425	- / 7.984	- / 8.230	- / 0.000	- / 8.230
P-5	2 / Acft Rearming Equip	P-5a			- / 11.836	- / 11.747	- / 11.251	- / 11.643	- / 0.000	- / 11.643
P-5	3 / Air Launch & Recovery Equip				- / 9.200	- / 33.675	- / 44.951	- / 42.610	- / 0.000	- / 42.610
P-3a	2 / ALRE - ADMACS Block Upgrade (SJ302) (Increase Capability)				- / 9.079	- / 44.313	- / 33.937	- / 16.370	- / 0.000	- / 16.370
P-3a	4 / LAMPS MK III - SRQ(KU)-4 (\$1010) (Non-Organic)				- / 13.972	- / 19.959	- / 18.910	- / 24.914	- / 0.000	- / 24.914
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 55.195</b>	<b>- / 127.774</b>	<b>- / 120.324</b>	<b>- / 108.482</b>	<b>- / 0.000</b>	<b>- / 108.482</b>
<p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>										
<p><b>Justification:</b> Expeditionary Airfields (EAF) - FY 2018 baseline funding is required for EAF Surfacing equipment, EAF Lighting Equipment, EAF Arresting Gear, associated ECPs and support.</p> <p>Aircraft Rearming Equipment - FY 2018 baseline funding is required for USMC A/M32K-4A Munitions Trailer Replacement, MHU-191/M CILOP, MHU-126/202 TRAILER REPLACEMENT, USMC A/S32K-1E WEAPONS LOADER REPLACEMENT, FARP Ordnance Loading SE and associated support costs.</p> <p>Aircraft Launch and Recovery Equipment (ALRE) - FY 2018 baseline funding is required for ALRE equipment, Electromagnetic Aircraft Launch System (EMALS), Aviation Data Management and Control System (ADMACS) Block Upgrade, Aviation Land and Launch Enclave (ALLE), and associated support.</p> <p>LAMPS MK III Shipboard Equipment - The FY 2018 baseline funding is required for the procurement of 6 AN/SRQ-4(Ku) field install kits and associated support and installation costs to meet the MH-60R deployment schedule.</p>										

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3								P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment							Aggregated Items Title: ALRE - Advanced Arresting Gear (SJ301)					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
B Kits/Non-Recurring																				
Non-Recurring Engineering -- Procurement <sup>(1)</sup>	A		-	-	0.734	-	-	5.843	-	-	1.596	-	-	-	-	-	-	-	-	-
Non-Recurring Engineering -- Installation	A		-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-
Data - Organic	A		-	-	0.966	-	-	2.016	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: B Kits/Non-Recurring			-	-	1.700	-	-	7.859	-	-	1.596	-	-	-	-	-	-	-	-	-
Support Cost																				
ILS	A		-	-	0.534	-	-	0.260	-	-	0.186	-	-	-	-	-	-	-	-	-
PE	A		-	-	1.451	-	-	1.536	-	-	0.452	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost			-	-	1.985	-	-	1.796	-	-	0.638	-	-	-	-	-	-	-	-	-
Total			-	-	3.685	-	-	9.655	-	-	2.234	-	-	0.000	-	-	0.000	-	-	0.000
Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.																				
Remarks: Models of Systems Affected: MK-7 legacy - Shorebased Type Modification: Advanced Arresting Gear (SJ301)  Advanced Arresting Gear (AAG) will replace the legacy Mark 7 arresting gear aboard Ford class aircraft carriers. AAG will provide the U.S. Navy with the ability to recover existing and projected aircraft carrier based air vehicles well into the 21st century. AAG will provide increased operational availability, while reducing manning, maintenance and support costs.  FY14 and prior funded under Aircraft Support Equipment (BLI 4216). FY18 and out funded under Advanced Arresting Gear (AAG) (BLI 4217) for OSD MDAP Transparency.  Footnotes: <sup>(1)</sup> 1.2.1 - FY18 and out funded under Advanced Arresting Gear (AAG) (BLI 4217) for OSD MDAP Transparency.																				

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<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy</b>																<b>Date:</b> May 2017			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3								<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment								<b>Aggregated Items Title:</b> ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)			

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
B Kits/Recurring																				
Ground Fault Detection -- Procurement	A		-	-	-	-	-	-	-	-	-	404,344.00	1	0.404	-	-	-	404,344.00	1	0.404
Ground Fault Detection -- Installation	A		-	-	-	-	-	-	-	-	-	-	-	0.049	-	-	-	-	-	0.049
Hardware Obsolescence -- Procurement	A		-	-	-	-	-	-	-	-	-	1,054K	1	1.054	-	-	-	1,054K	1	1.054
Hardware Obsolescence -- Installation	A		-	-	-	-	-	-	-	-	-	-	-	0.068	-	-	-	-	-	0.068
Subtotal: B Kits/Recurring			-	-	0.000	-	-	-	-	-	-	-	-	1.575	-	-	-	-	-	1.575
B Kits/Non-Recurring																				
Non-Recurring Engineering <sup>(2)</sup>	A		-	-	-	-	-	-	-	-	0.349	-	-	2.980	-	-	-	-	-	2.980
Subtotal: B Kits/Non-Recurring			-	-	0.000	-	-	-	-	-	0.349	-	-	2.980	-	-	-	-	-	2.980
Support Cost																				
PE	A		-	-	-	-	-	-	-	-	0.602	-	-	0.110	-	-	-	-	-	0.110
ILS	A		-	-	-	-	-	-	-	-	0.106	-	-	0.050	-	-	-	-	-	0.050
Subtotal: Support Cost			-	-	0.000	-	-	-	-	-	0.708	-	-	0.160	-	-	-	-	-	0.160
Total			-	-	0.000	-	-	0.000	-	-	1.057	-	-	4.715	-	-	0.000	-	-	4.715

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

**Remarks:**

Models of Systems Affected: C13-2 Steam Catapult  
Type Modification: Reliability and Maintainability

The Electromagnetic Aircraft Launch System (EMALS) is replacing the C13 Steam Catapult System aboard Ford class carriers and is an advanced technology aircraft launch system which provides better control of applied forces, improved reliability and maintainability, reduced manning workload and increased operational availability.

EMALS is a new start in FY17.

The Electromagnetic Aircraft Launch System (EMALS) program and associated costs have been realigned from the ALRE P5 to the P3a exhibit.

**Footnotes:**

<sup>(2)</sup> CE 1.2.1 - Non-Recurring Engineering addresses engineering changes, obsolescence of hardware, correction of deficiencies found during integration test and development test evaluation, and to maintain cyber security compliance and field critical software updates.

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 1 / Expeditionary Airfields						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				7.423		8.425		7.984		8.230		0.000		8.230				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				7.423		8.425		7.984		8.230		0.000		8.230				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				7.423		8.425		7.984		8.230		0.000		8.230				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - (SE010) EAF Surfacing Equipment Cost																		
Recurring Cost																		
1.1.1) AM-2-Matting (F72) <sup>(†)</sup>	7,148.15	27	0.193	7,162.00	32	0.229	7,162.00	32	0.229	7,162.00	45	0.322	-	-	0.000	7,162.00	45	0.322
1.1.2) AM-2 Matting (F73) <sup>(†)</sup>	9,000.00	1	0.009	9,495.00	2	0.019	9,495.00	2	0.019	9,495.00	3	0.028	-	-	0.000	9,495.00	3	0.028
1.1.3) AM-2 Matting (F71) <sup>(†) (3)</sup>	11,380.95	42	0.478	11,375.00	55	0.626	11,375.00	48	0.546	11,375.00	64	0.728	-	-	0.000	11,375.00	64	0.728
1.1.4) AM-2 Accessory Packs <sup>(1) (4)</sup>	-	-	0.386	-	-	0.307	-	-	0.307	-	-	0.376	-	-	0.000	-	-	0.376
1.1.5) Surfacing engineering change proposals <sup>(5)</sup>	-	-	1.852	-	-	2.003	-	-	2.196	-	-	2.240	-	-	0.000	-	-	2.240
Subtotal: Recurring Cost	-	-	2.918	-	-	3.184	-	-	3.297	-	-	3.694	-	-	0.000	-	-	3.694
Subtotal: Hardware - (SE010) EAF Surfacing Equipment Cost	-	-	2.918	-	-	3.184	-	-	3.297	-	-	3.694	-	-	0.000	-	-	3.694
Hardware - (SE860) Acceptance Testing and Evaluation - Surfacing Cost																		
Recurring Cost																		
2.1.1) EAF Surfacing Equipment	-	-	0.156	-	-	0.314	-	-	0.712	-	-	0.326	-	-	0.000	-	-	0.326
Subtotal: Recurring Cost	-	-	0.156	-	-	0.314	-	-	0.712	-	-	0.326	-	-	0.000	-	-	0.326
Subtotal: Hardware - (SE860) Acceptance Testing	-	-	0.156	-	-	0.314	-	-	0.712	-	-	0.326	-	-	0.000	-	-	0.326



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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 1 / Expeditionary Airfields						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
and Evaluation - Surfacing Cost																		
Hardware - (SE010) EAF Lighting Equipment Cost																		
Recurring Cost																		
3.1.1) Man Portable Lights <sup>(6)</sup>	-	-	0.540	-	-	0.822	-	-	0.338	-	-	0.413	-	-	0.000	-	-	0.413
3.1.2) Lighting Engineering Change Proposals <sup>(7)</sup>	-	-	1.250	-	-	1.674	-	-	2.118	-	-	2.131	-	-	0.000	-	-	2.131
Subtotal: Recurring Cost	-	-	1.790	-	-	2.496	-	-	2.456	-	-	2.544	-	-	0.000	-	-	2.544
Subtotal: Hardware - (SE010) EAF Lighting Equipment Cost	-	-	1.790	-	-	2.496	-	-	2.456	-	-	2.544	-	-	0.000	-	-	2.544
Hardware - Acceptance Testing - Lighting Cost																		
Recurring Cost																		
4.1.1) EAF Lighting Equipment <sup>(8)</sup>	-	-	0.390	-	-	0.892	-	-	0.020	-	-	0.043	-	-	0.000	-	-	0.043
Subtotal: Recurring Cost	-	-	0.390	-	-	0.892	-	-	0.020	-	-	0.043	-	-	0.000	-	-	0.043
Subtotal: Hardware - Acceptance Testing - Lighting Cost	-	-	0.390	-	-	0.892	-	-	0.020	-	-	0.043	-	-	0.000	-	-	0.043
Hardware - (SE0210) EAF Arresting Gear Cost																		
Recurring Cost																		
5.1.1) M-31 Engineering Change Proposals	-	-	0.412	-	-	0.263	-	-	0.249	-	-	0.360	-	-	0.000	-	-	0.360
Subtotal: Recurring Cost	-	-	0.412	-	-	0.263	-	-	0.249	-	-	0.360	-	-	0.000	-	-	0.360
Subtotal: Hardware - (SE0210) EAF Arresting Gear Cost	-	-	0.412	-	-	0.263	-	-	0.249	-	-	0.360	-	-	0.000	-	-	0.360
Hardware - Acceptance Testing - Arresting Gear Cost																		
Recurring Cost																		
6.1.1) EAF Arresting Gear	-	-	0.314	-	-	0.021	-	-	0.029	-	-	0.047	-	-	0.000	-	-	0.047
Subtotal: Recurring Cost	-	-	0.314	-	-	0.021	-	-	0.029	-	-	0.047	-	-	0.000	-	-	0.047
Subtotal: Hardware - Acceptance Testing - Arresting Gear Cost	-	-	0.314	-	-	0.021	-	-	0.029	-	-	0.047	-	-	0.000	-	-	0.047
Support - (SE800) Integrated Logistics Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 1 / Expeditionary Airfields						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
7.1) EAF Surfacing Equipment	-	-	0.510	-	-	0.529	-	-	0.477	-	-	0.436	-	-	0.000	-	-	0.436
7.2) EAF Lighting Equipment	-	-	0.087	-	-	0.099	-	-	0.041	-	-	0.039	-	-	0.000	-	-	0.039
7.3) EAF Arresting Gear	-	-	0.161	-	-	0.040	-	-	0.035	-	-	0.032	-	-	0.000	-	-	0.032
Subtotal: Support - (SE800) Integrated Logistics Cost	-	-	0.758	-	-	0.668	-	-	0.553	-	-	0.507	-	-	0.000	-	-	0.507
Support - (SE830) Production Engineering Cost																		
8.1) EAF Surfacing Equipment	-	-	0.310	-	-	0.377	-	-	0.480	-	-	0.467	-	-	0.000	-	-	0.467
8.2) EAF Lighting Equipment	-	-	0.145	-	-	0.120	-	-	0.107	-	-	0.088	-	-	0.000	-	-	0.088
8.3) EAF Arresting Gear	-	-	0.230	-	-	0.090	-	-	0.081	-	-	0.154	-	-	0.000	-	-	0.154
Subtotal: Support - (SE830) Production Engineering Cost	-	-	0.685	-	-	0.587	-	-	0.668	-	-	0.709	-	-	0.000	-	-	0.709
Gross/Weapon System Cost	-	-	7.423	-	-	8.425	-	-	7.984	-	-	8.230	-	-	0.000	-	-	8.230
Remarks:																		
The quantities of AM-2 and Light Weight Matting procured vary depending on the type of matting and service change requirements each year. The equipment, accessories and service changes are procured and fielded with these funds. Equipment procurements are based on inventory shortfalls, product improvements to fill or correct deficiencies, modernizing EAF equipment to improve maintainability, reliability and safety-of-flight and to keep pace with new aircraft and aircraft systems.																		
(†) indicates the presence of a P-5a																		
Footnotes:																		
(3) AM2 Matting (cost elements 1.1.1 - 1.1.3) Unit costs will remain constant throughout the FYDP. The cost of the AM2 is based on a yearly rate of 50,000 square feet which is used to account for lost and damaged AM2. This rate ensures that the assets in the Table of Basic Allowance are maintained. This does not include the addition of AM2 assets to the inventory, but sustainment only. AM2 Matting (cost elements 1.1.1 - 1.1.3) quantity changes based on tracking of EAF projected fleet requirements from the Table of Basic Allowance and the Marine Wing Support Squadron available assets to determine what needs to be procured on an annual basis.																		
(4) AM-2 Accessory Packs (1.1.4) consist of multiple low priced items. There are several types of configurations that are procured each year, therefore, individual quantities are not provided for some Expeditionary equipment.																		
(5) Surfacing Engineering Change Proposals (1.1.5). The increase supports the procurement of hardware to support multiple Surfacing ECPs and the associated engineering support. Surfacing ECPs are required to adapt to diverse airfield operating environments which drive changes to tool kits necessary for matting installation, accommodating new aircraft heat signatures (i.e. JSF) as well as variable soil compositions.																		
(6) Man Portable Light Packs (3.1.1) consists of multiple low priced items. There are several types of configurations that are procured each year, therefore, individual quantities are not provided for some Expeditionary equipment.																		

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<b>Exhibit P-5, Cost Analysis:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3	<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment	<b>Item Number / Title [DODIC]:</b> 1 / Expeditionary Airfields
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<p><sup>(7)</sup> Lighting Engineering Change Proposals (3.1.2) address the obsolescence and reliability of an aging legacy system. The ECP work for the Minimum Operating Strip Lighting System (MOSLS) and Man Portable Lights provides upgrades to obsolescent incandescent bulbs, unreliable battery systems, and other deficiencies.</p> <p><sup>(8)</sup> Lighting Equipment Acceptance Test &amp; Evaluation (4.1.1) - FY18 requirements are driven by the Acceptance Testing required to support multiple Lighting ECPs.</p>		

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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3			P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment					Item Number / Title [DODIC]: 1 / Expeditionary Airfields				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) AM-2-Matting (F72)		2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	32	7,162.00	Y		Sep 2011
1.1.1) AM-2-Matting (F72)		2017	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2017	May 2017	32	7,162.00	Y		Sep 2011
1.1.1) AM-2-Matting (F72)		2018	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2018	May 2018	45	7,162.00	Y		Sep 2011
1.1.2) AM-2 Matting (F73)		2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	2	9,495.00	Y		Sep 2011
1.1.2) AM-2 Matting (F73)		2017	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2017	May 2017	2	9,495.00	Y		Sep 2011
1.1.2) AM-2 Matting (F73)		2018	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2018	May 2018	3	9,495.00	Y		Sep 2011
1.1.3) AM-2 Matting (F71)		2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	55	11,375.00	Y		Sep 2011
1.1.3) AM-2 Matting (F71)		2017	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2017	May 2017	48	11,375.00	Y		Sep 2011
1.1.3) AM-2 Matting (F71)		2018	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2018	May 2018	64	11,375.00	Y		Sep 2011

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 2 / Acft Rearming Equip								
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:											
Resource Summary				Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
Procurement Quantity <i>(Units in Each)</i>				-			-			-			-			-			-		
Gross/Weapon System Cost <i>(\$ in Millions)</i>				11.836			11.747			11.251			11.643			0.000			11.643		
Less PY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Net Procurement (P-1) <i>(\$ in Millions)</i>				11.836			11.747			11.251			11.643			0.000			11.643		
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Total Obligation Authority <i>(\$ in Millions)</i>				11.836			11.747			11.251			11.643			0.000			11.643		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total				
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)		
Hardware - HARDWARE - Ordnance Assembly Cost																					
Recurring Cost																					
1.1.1) SH042 - USMC WEAPONS ASSEMBLY STATION (A/E32K-11 LIFTING ASSLY) <sup>(†)</sup>		285,000.00	3	0.855	285,130.00	6	1.711	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Recurring Cost		-	-	0.855	-	-	1.711	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - HARDWARE - Ordnance Assembly Cost		-	-	0.855	-	-	1.711	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Hardware - HARDWARE - Ordnance Transport Cost																					
Recurring Cost																					
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/M32K-10 MUN TRLR) <sup>(†)</sup>		56,121.50	107	6.005	61,147.37	95	5.809	61,147.37	109	6.665	61,134.62	53	3.240	-	-	0.000	61,134.62	53	3.240		
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER <sup>(†)</sup>		6,000.00	193	1.158	6,120.00	174	1.065	6,242.40	441	2.753	6,367.25	600	3.820	-	-	0.000	6,367.25	600	3.820		
2.1.3) SH045 - MHU-126/202 TRLR REPLACEMENT - (MHU-230/M) <sup>(†)</sup>		-	-	0.000	-	-	0.000	-	-	0.000	250,000.00	4	1.000	-	-	0.000	250,000.00	4	1.000		

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Exhibit P-5, Cost Analysis: FY 2018 Navy											Date: May 2017							
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 2 / Acft Rearming Equip						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Subtotal: Recurring Cost	-	-	7.163	-	-	6.874	-	-	9.418	-	-	8.060	-	-	0.000	-	-	8.060
Subtotal: Hardware - HARDWARE - Ordnance Transport Cost	-	-	7.163	-	-	6.874	-	-	9.418	-	-	8.060	-	-	0.000	-	-	8.060
Hardware - HARDWARE - Ordnance Loading Cost																		
Recurring Cost																		
3.1.1) SH046 - USMC A/S32K-1E WEAPONS LOADER REPLACEMENT <sup>(†) (9)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	647,000.00	2	1.294	-	-	0.000	647,000.00	2	1.294
3.1.3) SH049 - FARP ORDNANCE LOADING SE <sup>(†) (10)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	159,375.00	1	0.159	-	-	0.000	159,375.00	1	0.159
Subtotal: Recurring Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.453	-	-	0.000	-	-	1.453
Subtotal: Hardware - HARDWARE - Ordnance Loading Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	1.453	-	-	0.000	-	-	1.453
Hardware - SH920 NON-RECURRING Cost																		
Non Recurring Cost																		
4.1.1) Ordnance Transport <sup>(11)</sup>	-	-	0.000	-	-	0.544	-	-	0.000	-	-	0.300	-	-	0.000	-	-	0.300
4.1.2) Ordnance Loading	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.331	-	-	0.000	-	-	0.331
Subtotal: Non Recurring Cost	-	-	0.000	-	-	0.544	-	-	0.000	-	-	0.631	-	-	0.000	-	-	0.631
Subtotal: Hardware - SH920 NON-RECURRING Cost	-	-	0.000	-	-	0.544	-	-	0.000	-	-	0.631	-	-	0.000	-	-	0.631
Hardware - SH010 ECP Cost																		
Recurring Cost																		
5.1.1) Ordnance Transport ECP <sup>(12)</sup>	-	-	1.718	-	-	0.417	-	-	0.112	-	-	0.093	-	-	0.000	-	-	0.093
5.1.2) Ordnance Loading ECP	-	-	0.050	-	-	0.059	-	-	0.112	-	-	0.094	-	-	0.000	-	-	0.094
Subtotal: Recurring Cost	-	-	1.768	-	-	0.476	-	-	0.224	-	-	0.187	-	-	0.000	-	-	0.187
Subtotal: Hardware - SH010 ECP Cost	-	-	1.768	-	-	0.476	-	-	0.224	-	-	0.187	-	-	0.000	-	-	0.187
Hardware - SH860 Acceptance Test & Eval Cost																		
Recurring Cost																		

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment							Item Number / Title [DODIC]: 2 / Acft Rearming Equip					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
6.1.1) Ordnance Assembly Acceptance Testing	-	-	0.105	-	-	0.086	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
6.1.2) Ordnance Transport Acceptance Testing	-	-	0.174	-	-	0.160	-	-	0.215	-	-	0.177	-	-	0.000	-	-	0.177
6.1.3) Ordnance Loading Acceptance Testing	-	-	0.206	-	-	0.193	-	-	0.284	-	-	0.209	-	-	0.000	-	-	0.209
Subtotal: Recurring Cost	-	-	0.485	-	-	0.439	-	-	0.499	-	-	0.386	-	-	0.000	-	-	0.386
Subtotal: Hardware - SH860 Acceptance Test & Eval Cost	-	-	0.485	-	-	0.439	-	-	0.499	-	-	0.386	-	-	0.000	-	-	0.386
Support - SH800 ILS Cost																		
7.1) Ordnance Assembly	-	-	0.096	-	-	0.190	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
7.2) Ordnance Transport	-	-	0.124	-	-	0.238	-	-	0.199	-	-	0.164	-	-	0.000	-	-	0.164
7.3) Ordnance Loading	-	-	0.207	-	-	0.296	-	-	0.379	-	-	0.281	-	-	0.000	-	-	0.281
Subtotal: Support - SH800 ILS Cost	-	-	0.427	-	-	0.724	-	-	0.578	-	-	0.445	-	-	0.000	-	-	0.445
Support - SH830 Production Engineering Cost																		
8.1) Ordnance Assembly PE	-	-	0.370	-	-	0.327	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
8.2) Ordnance Transport PE	-	-	0.193	-	-	0.314	-	-	0.271	-	-	0.227	-	-	0.000	-	-	0.227
8.3) Ordnance Loading PE	-	-	0.575	-	-	0.338	-	-	0.261	-	-	0.254	-	-	0.000	-	-	0.254
Subtotal: Support - SH830 Production Engineering Cost	-	-	1.138	-	-	0.979	-	-	0.532	-	-	0.481	-	-	0.000	-	-	0.481
Gross/Weapon System Cost	-	-	11.836	-	-	11.747	-	-	11.251	-	-	11.643	-	-	0.000	-	-	11.643

(†) indicates the presence of a P-5a

Footnotes:

(9) USMC A/S32K-1E Weapons Loader (SH046) quantity in FY16 reduced to zero due to requirements not being matured.

(10) FARP Ordnance Loading SE added to FY18 due to various armament handling and loading support equipment required to enable Combatant Commanders to support Forward Arming and Refueling Point (FARP) locations. Requirement identified by Deputy Commandant for Aviation, Headquarters United States Marine Corps ltr 8000 ASL dated 1 February 2016 and endorsed by OPNAV Director of Air Warfare (N98) ltr 8000 Ser N98/16U141801 dated 2 May 2016.

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Exhibit P-5, Cost Analysis: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Item Number / Title [DODIC]: 2 / Acft Rearming Equip
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<div>(11) SH920 Ordnance Transport increase in FY16 from MHU-191/M due to a one time cost incurred to setup a second production line. FY18 cost increase due to NRE for SH046 - USMC A/S32K-1E WEAPONS LOADER REPLACEMENT and SH049 - FARP ORDNANCE LOADING SE.</div> <div>(12) (SH010) Ordnance Transport ECP funding increase in FY16 due to purchasing factory production line ECP upgrade kits for A/M32K-10 Munitions Trailers to address emergent brake system and hardware corrosion issues.</div>		



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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3				P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment					Item Number / Title [DODIC]: 2 / Acft Rearming Equip			
Cost Elements	O C O	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
1.1.1) SH042 - USMC WEAPONS ASSEMBLY STATION (A/E32K-11 LIFTING ASSLY)		2015	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Apr 2017	Dec 2017	3	285,130.00	Y		Mar 2010
1.1.1) SH042 - USMC WEAPONS ASSEMBLY STATION (A/E32K-11 LIFTING ASSLY)		2016	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Apr 2017	Dec 2017	6	285,130.00	Y		Mar 2010
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/ M32K-10 MUN TRLR)		2016	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Dec 2015	Aug 2016	95	61,147.37	Y		Nov 2010
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/ M32K-10 MUN TRLR)		2017	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Dec 2016	Aug 2017	109	61,147.37	Y		Nov 2010
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/ M32K-10 MUN TRLR)		2018	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Dec 2017	Aug 2018	53	61,134.62	Y		Nov 2010
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER		2016	DEVAL CORPORATION / PHILADELPHIA, PA	C / FFP	NAWCADLKE	Feb 2016	Oct 2016	174	6,120.00	Y		Jun 2011
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER		2017	DEVAL CORPORATION / PHILADELPHIA, PA	C / FFP	NAWCADLKE	Jan 2017	Sep 2017	441	6,242.40	Y		Jun 2011
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER		2018	DEVAL CORPORATION / PHILADELPHIA, PA	C / FFP	NAWCADLKE	Jan 2018	Sep 2018	600	6,367.25	Y		Jun 2011
2.1.3) SH045 - MHU-126/202 TRLR REPLACEMENT - (MHU-230/M)		2018	TBD / TBD	C / FFP	NAWCADLKE	Mar 2018	Nov 2018	4	250,000.00	Y		Mar 2017
3.1.1) SH046 - USMC A/ S32K-1E WEAPONS LOADER REPLACEMENT		2018	TBD / TBD	C / FFP	NAWCADLKE	Mar 2018	Dec 2018	2	647,000.00	Y		Mar 2017
3.1.3) SH049 - FARP ORDNANCE LOADING SE		2018	TBD / TBD	C / FFP	NAWCADLKE	Mar 2018	Dec 2018	1	159,375.00	Y		Mar 2017

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 3 / Air Launch & Recovery Equip						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				9.200		33.675		44.951		42.610		0.000		42.610				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				9.200		33.675		44.951		42.610		0.000		42.610				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				9.200		33.675		44.951		42.610		0.000		42.610				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - SJ040 - Service Change Kits Cost																		
Recurring Cost																		
1.1.1) Information Systems (SJ040)	-	-	0.205	-	-	1.492	-	-	3.807	-	-	4.170	-	-	0.000	-	-	4.170
1.1.2) Visual Landing Aids (SJ040)	-	-	0.537	-	-	6.983	-	-	7.256	-	-	4.857	-	-	0.000	-	-	4.857
1.1.3) Launcher (SJ040)	-	-	0.000	-	-	0.065	-	-	1.853	-	-	0.581	-	-	0.000	-	-	0.581
1.1.4) Recovery (SJ040) <sup>(13)</sup>	-	-	0.215	-	-	0.752	-	-	5.793	-	-	5.590	-	-	0.000	-	-	5.590
1.1.6) ALLE <sup>(14)</sup>	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.312	-	-	0.000	-	-	0.312
Subtotal: Recurring Cost	-	-	0.957	-	-	9.292	-	-	18.709	-	-	15.510	-	-	0.000	-	-	15.510
Subtotal: Hardware - SJ040 - Service Change Kits Cost	-	-	0.957	-	-	9.292	-	-	18.709	-	-	15.510	-	-	0.000	-	-	15.510
Hardware - - SJ305 - Non-Recurring Engineering Cost																		
Non Recurring Cost																		
2.1.1) Information Systems - NRE	-	-	2.509	-	-	4.641	-	-	4.497	-	-	2.655	-	-	0.000	-	-	2.655
2.1.2) Visual Landing Aids	-	-	0.000	-	-	4.721	-	-	5.525	-	-	1.961	-	-	0.000	-	-	1.961
2.1.3) Launcher	-	-	0.000	-	-	1.656	-	-	1.047	-	-	1.064	-	-	0.000	-	-	1.064
2.1.4) Recovery	-	-	0.000	-	-	2.964	-	-	5.124	-	-	4.379	-	-	0.000	-	-	4.379
2.1.5) ALLE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	3.196	-	-	0.000	-	-	3.196

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment							Item Number / Title [DODIC]: 3 / Air Launch & Recovery Equip					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Subtotal: Non Recurring Cost	-	-	2.509	-	-	13.982	-	-	16.193	-	-	13.255	-	-	0.000	-	-	13.255
Subtotal: Hardware - - SJ305 - Non-Recurring Engineering Cost	-	-	2.509	-	-	13.982	-	-	16.193	-	-	13.255	-	-	0.000	-	-	13.255
Support - SJ800 - Integrated Logistics Cost																		
3.1) Information Systems (15)	-	-	0.276	-	-	0.316	-	-	0.297	-	-	0.486	-	-	0.000	-	-	0.486
3.2) Visual Landing Aids	-	-	0.279	-	-	0.418	-	-	0.333	-	-	0.350	-	-	0.000	-	-	0.350
3.3) Launcher	-	-	0.294	-	-	0.081	-	-	0.220	-	-	0.167	-	-	0.000	-	-	0.167
3.4) Recovery	-	-	0.487	-	-	0.761	-	-	0.647	-	-	0.534	-	-	0.000	-	-	0.534
3.6) ALLE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.291	-	-	0.000	-	-	0.291
Subtotal: Support - SJ800 - Integrated Logistics Cost	-	-	1.336	-	-	1.576	-	-	1.497	-	-	1.828	-	-	0.000	-	-	1.828
Support - SJ830 - Production Engineering Cost																		
4.1) Information Systems (16)	-	-	0.829	-	-	0.784	-	-	1.029	-	-	1.374	-	-	0.000	-	-	1.374
4.2) Visual Landing Aids	-	-	0.990	-	-	1.722	-	-	1.094	-	-	0.932	-	-	0.000	-	-	0.932
4.3) Launcher	-	-	0.493	-	-	0.316	-	-	0.335	-	-	0.319	-	-	0.000	-	-	0.319
4.4) Recovery	-	-	1.240	-	-	1.076	-	-	1.152	-	-	1.097	-	-	0.000	-	-	1.097
4.6) ALLE	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.328	-	-	0.000	-	-	0.328
Subtotal: Support - SJ830 - Production Engineering Cost	-	-	3.552	-	-	3.898	-	-	3.610	-	-	4.050	-	-	0.000	-	-	4.050
Support - SJ900 - Installation -NonFMP Cost																		
5.1) Information Systems (17)	-	-	0.000	-	-	0.485	-	-	0.235	-	-	0.000	-	-	0.000	-	-	0.000
5.2) Visual Landing Aids	-	-	0.000	-	-	0.000	-	-	0.457	-	-	0.000	-	-	0.000	-	-	0.000
5.3) Launcher (18)	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.001	-	-	0.000	-	-	0.001
5.4) Recovery	-	-	0.000	-	-	0.017	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Support - SJ900 - Installation -NonFMP Cost	-	-	0.000	-	-	0.502	-	-	0.692	-	-	0.001	-	-	0.000	-	-	0.001
Support - SJ910 - Installation -FMP Cost																		
6.1) Information Systems (19)	-	-	0.470	-	-	0.808	-	-	1.147	-	-	0.745	-	-	0.000	-	-	0.745
6.2) Visual Landing Aids (20)	-	-	0.210	-	-	1.327	-	-	1.087	-	-	4.151	-	-	0.000	-	-	4.151
6.3) Launcher (21)	-	-	0.000	-	-	1.148	-	-	0.771	-	-	1.038	-	-	0.000	-	-	1.038

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Exhibit P-5, Cost Analysis: FY 2018 Navy											Date: May 2017							
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment						Item Number / Title [DODIC]: 3 / Air Launch & Recovery Equip						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
6.4) Recovery <sup>(22)</sup>	-	-	0.166	-	-	1.142	-	-	1.245	-	-	2.032	-	-	0.000	-	-	2.032
Subtotal: Support - SJ910 - Installation -FMP Cost	-	-	0.846	-	-	4.425	-	-	4.250	-	-	7.966	-	-	0.000	-	-	7.966
Gross/Weapon System Cost	-	-	9.200	-	-	33.675	-	-	44.951	-	-	42.610	-	-	0.000	-	-	42.610
Remarks: The Electromagnetic Aircraft Launch System (EMALS) program and associated costs have been realigned from the ALRE P5 to the P3a exhibit.																		
[Hardware] The recurring hardware funding shown is a combination of many planned hardware upgrades to a variety of Aircraft Launch and Recovery Systems and to a variety of ships/classes including Carrier Vessel Nuclear (CVNs), Amphibious Assault Ships (AAS), and Air Capable Ships (ACS), which include various unit costs/quantities for differing fiscal years. As such, hardware recurring costs will vary significantly year to year and within each item.																		
[Hardware] Non-Recurring Engineering costs are associated with design, development, systems test and evaluation, tooling, logistics, systems engineering and project management of hardware or software Engineering Changes.																		
[Support Cost] Recurring Engineering Support costs are associated with the non-level of effort (organic) labor at NAWCAD Lakehurst directly supporting the manufacture of hardware, assembly kits and installation kits for many of the service changes.																		
Footnotes: <sup>(13)</sup> C.E. 1.1.4 (Recovery) - Increase in cost from FY17 due to increase in estimated unit cost of the Compact Swaging Machine (CSM). Previous budget reflected an estimated unit cost approximately 50% of the actual negotiated unit cost. Unit cost increase is reflected in cost element increases from FY16 through FY18. <sup>(14)</sup> C.E. 1.1.6, 2.1.5, 3.6, 4.6, 6.6 Aviation Land and Launch Enclave (ALLE) - Cost elements added to provide traceability of the funding added to establish the Aviation Land and Launch Enclave. ALLE efforts will enhance network segmentation, device hardening, centralized monitoring, increase cyber situational awareness and incident responses within the enclave which includes multiple products within the ALRE portfolio. <sup>(15)</sup> CE 3.1 (Information Systems) Increase in FY18 due to critical efforts to support LSODS obsolescence issues, as well as for logistics and engineering support required to field Moriah Wind System on L Class and ACS ships. <sup>(16)</sup> CE 4.1 (Information Systems) Increase in FY18 due to critical efforts to support LSODS obsolescence issues, as well as logistics and engineering support required for fielding Moriah Wind System on L Class and ACS ships. <sup>(17)</sup> CE 5.1 (Information Systems) Decrease in FY18 due to change in ship availability; installs rescheduled accordingly. Costs moved from 5.1 to 2.1.1, 3.1, and 4.1 for required completion of ECPs, logistics, and engineering efforts on LSODS and Moriah Wind System. <sup>(18)</sup> Issue 72318 PB18 NAVAIR Technical Corrections OPN BSO19 leaves \$1,000 in Non-FMP portion of the budget. <sup>(19)</sup> CE 6.1 (Information Systems) Decrease in FY18 due to change in ship availability; installs rescheduled accordingly. Costs moved from 6.1 to 2.1.1, 3.1, and 4.1 for required completion of ECPs, logistics, and engineering efforts on LSODS and Moriah Wind System. <sup>(20)</sup> 6.2. Increase in FY18 due to installations of Improved Fresnel Lens Optical Landing System (IFLOLS) unit 2 replacement and unit 1 improvements, and Integrated Launch and Recovery Television Surveillance (ILARTS) System Modifications.																		

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Exhibit P-5, Cost Analysis: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Item Number / Title [DODIC]: 3 / Air Launch & Recovery Equip
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<div>(21) 6.3. Fluctuation in cost due to ship availability; installs rescheduled accordingly.</div> <div>(22) C.E. 6.4 (Recovery) - Increased installation costs from FY17 to FY18 due to additional installs for various CVNs. Fluctuation in cost due to ship availability; installs rescheduled accordingly.</div>		

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy					<b>Date:</b> May 2017	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3			<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment		<b>Modification Number / Title:</b> 2 / ALRE - ADMACS Block Upgrade (SJ302)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>		
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	9.079	44.313	33.937	16.370	0.000	16.370
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	9.079	44.313	33.937	16.370	0.000	16.370
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>9.079</b>	<b>44.313</b>	<b>33.937</b>	<b>16.370</b>	<b>0.000</b>	<b>16.370</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-
<p><b>Description:</b></p> <p>The Aviation Data Management and Control System (ADMACS) is an integrated, network-centric, shipboard aviation operations information management system, which will provide data required for aircraft carriers aviation operations planning, execution and readiness assessment. ADMACS communicates aviation and command related data elements across the ADMACS Local Area Network and Integrated Shipboard Network System that electronically displays position and location of aircraft on the flight and hangar decks, status of aircraft, Aircraft Launch and Recovery Equipment, fuel, weapons types and quantity as well as a wide variety of other aviation related and ship information.</p> <p>The Milestone Decision Authority (MDA) has approved the ADMACS Block (Blk) II program rebaseline. The ADMACS program experienced an MDA directed rebaseline due to software deficiencies found during final Developmental Testing (DT)/Shipboard testing and the resultant need to defer Initial Operational Test and Evaluation. The rebaselined program will address DT identified software deficiencies as well as address all outstanding Information Assurance (IA) requirements/mandates and will provide for necessary obsolescence upgrades on this largely Commercial-Off-The-Shelf system to address long term supportability. The rebaseline targets the Blk I ISNS ships first and then the remaining Blk I ships from an IA requirements perspective.</p> <p>BlkI/ISNS Kits - (Full) C.E. 1.1.1 the 3 kits procured in FY16 are full kits. ADMACS Installation Modification Item 1 of 2 and 2 of 2: Installation costs include the advance planning costs (i.e. ship-check) for ADMACS which are funded and occur in the year prior to actual system installation. ADMACS installation information - Installation Cost: ADMACS Block II Upgrade is the common configuration planned for all CVNs. Depending on the system (Block I, Block I/ISNS or Block II) currently fielded, there is wide variance in the procurement and/or installation costs depending upon whether a full, completion, or upgrade Block II kit is procured or installed; current Blk I CVNs (68/72/73/74/76) and Blk I/ISNS CVNs (70/77) generally required a Full Blk II kit and a full installation; current Blk II CVNs (69/71/75) required an upgrade kit only. Specifically, CVN77 requires a completion kit.</p> <p>The 3 Block II upgrade kits procured in FY14 are shown under BLI 4216 Budget. They are part of the Oct 2013 Milestone Decision Authority approved re-baseline, which are Block II upgrade kits for currently fielded Block II systems. The kits procured in FY14 are planned to be installed as follows: 2 in FY16 (Blk II upgrade to CVN 71 and 75) and 1 in FY17 (Blk II upgrade to CVN69). The time from procurement to installation varies due to: 1) constantly shifting CVN availabilities, and 2) the need to bundle procurements of several kits and do 2-year rolling obsolescence upgrade ECPs for each bundle. The urgency to begin fielding upgrade kits in FY18 (rather than FY20) requires a change in procurement strategy in FY17 from a completion kit in support of a trainer to procurement of 2 upgrade kits in FY17 in support of FY18 installations on CVN 68 and CVN 77.</p> <p>FY14 and prior funded under Aircraft Support Equipment (BLI 4216)</p>						

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Exhibit P-3a, Individual Modification: FY 2018 Navy				Date: May 2017		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3		P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment		Modification Number / Title: 2 / ALRE - ADMACS Block Upgrade (SJ302)		
ID Code (A=Service Ready, B=Not Service Ready) :			MDAP/MAIS Code:			
Models of Systems Affected: ADMACS Block 2		Modification Type: Increase Capability		Related RDT&E PEs: 0604512N		
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement						
Modification Item 1 of 2: Block I and Block I/ISNS						
B Kits						
Recurring						
1.1.1) Blk I/ISNS Kits - (Full) - NonOrganic <sup>(23)</sup> - / - 3 / 11.799 - / - - / - - / - - / -						
1.1.2) Hardware Obsolescence ECPs - Organic <sup>(24)</sup> - / 1.181 - / 3.253 - / 2.691 - / - - / - - / -						
1.1.3) Cybersecurity - Organic - / 0.879 - / 4.536 - / 3.232 - / - - / - - / -						
1.1.4) Systems Integration & Installation - Organic - / 1.430 - / 2.880 - / 3.187 - / - - / - - / -						
Subtotal: Recurring - / 3.490 - / 22.468 - / 9.110 - / - - / - - / -						
Subtotal: Block I and Block I/ISNS - / 3.490 3 / 22.468 - / 9.110 - / - - / - - / -						
Modification Item 2 of 2: Block II						
B Kits						
Recurring						
2.1.1) Hardware Obsolescence ECPs - Organic <sup>(25)</sup> - / 0.850 - / 1.947 - / 2.434 - / 0.546 - / - - / 0.546						
2.1.2) Cyber Security - Organic <sup>(26)</sup> - / 0.510 - / 2.687 - / 4.985 - / 2.097 - / - - / 2.097						
2.1.3) Systems Integration and Installation - Organic <sup>(27)</sup> - / 0.600 - / 2.114 - / 3.151 - / 1.271 - / - - / 1.271						
Subtotal: Recurring - / 1.960 - / 6.748 - / 10.570 - / 3.914 - / - - / 3.914						
Non-Recurring						
2.2.1) Block II Upgrade Kits - NonOrganic <sup>(28)</sup> 3 / 0.000 - / - 2 / 0.573 2 / 0.824 - / - 2 / 0.824						
Subtotal: Non-Recurring - / 0.000 - / - - / 0.573 - / 0.824 - / - - / 0.824						
Subtotal: Block II 3 / 1.960 - / 6.748 2 / 11.143 2 / 4.738 - / - 2 / 4.738						
Subtotal: Procurement, All Modification Items - / 5.450 - / 29.216 - / 20.253 - / 4.738 - / - - / 4.738						
Support (All Modification Items)						
3.1) ILS - / 0.525 - / 2.100 - / 1.952 - / 0.383 - / 0.000 - / 0.383						
3.2) PE - / 3.104 - / 3.806 - / 4.585 - / 2.992 - / 0.000 - / 2.992						
Subtotal: Support - / 3.629 - / 5.906 - / 6.537 - / 3.375 - / - - / 3.375						
Installation						
Modification Item 1 of 2: Block I and Block I/ISNS - / 0.000 - / 4.213 - / 5.007 - / 5.934 - / 0.000 - / 5.934						
Modification Item 2 of 2: Block II - / 0.000 - / 4.978 - / 2.140 - / 2.323 - / 0.000 - / 2.323						
Subtotal: Installation - / 0.000 - / 9.191 - / 7.147 - / 8.257 - / - - / 8.257						

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy					<b>Date:</b> May 2017	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3		<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment			<b>Modification Number / Title:</b> 2 / ALRE - ADMACS Block Upgrade (SJ302)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>		
<b>Models of Systems Affected:</b> ADMACS Block 2		<b>Modification Type:</b> Increase Capability			<b>Related RDT&amp;E PEs:</b> 0604512N	
<b>Financial Plan</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
<b>Total</b>						
<b>Total Cost (Procurement + Support + Installation)</b>	<b>9.079</b>	<b>44.313</b>	<b>33.937</b>	<b>16.370</b>	<b>0.000</b>	<b>16.370</b>



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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy					<b>Date:</b> May 2017								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3				<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment				<b>Modification Number / Title:</b> 2 / ALRE - ADMACS Block Upgrade (SJ302)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :					<b>MDAP/MAIS Code:</b>								
<b>Modification Item 1 of 2:</b> Block I and Block I/ISNS													
<b>Manufacturer Information</b>													
Manufacturer Name: Bowhead Manufacturing Technology - Blk I/ISNS Kits - (Full) <sup>(29)</sup>					Manufacturer Location: Plano, TX								
Administrative Leadtime <i>(in Months)</i> : 2					Production Leadtime <i>(in Months)</i> : 11								
<b>Dates</b>		<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018</b>					
Contract Dates		Oct 2015											
Delivery Dates		Sep 2016											
<b>Installation Information</b>													
<b>Method of Implementation:</b> AIT:: Installation Name: Blk I/ISNS Kits - (Full)													
<b>Installation Cost</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>							
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)							
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -							
FY 2016	- / -	1 / 4.213	1 / 5.007	1 / 5.934	0 / 0.000	1 / 5.934							
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -							
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -							
Total	- / -	1 / 4.213	1 / 5.007	1 / 5.934	0 / 0.000	1 / 5.934							
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2016</b>				<b>FY 2017</b>				<b>FY 2018</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	-	-	-	-	1	-	-	-	1	-	-	1	-
Out	-	-	-	-	-	-	1	-	-	-	1	-	-

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy						<b>Date:</b> May 2017						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3				<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment		<b>Modification Number / Title:</b> 2 / ALRE - ADMACS Block Upgrade (SJ302)						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :					<b>MDAP/MAIS Code:</b>							
<b>Modification Item 2 of 2:</b> Block II												
<b>Installation Information</b>												
<b>Method of Implementation:</b> ALT:: Installation Name: Block II Upgrade Kits												
Installation Cost	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total						
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)						
Prior Years	- / -	2 / 4.978	1 / 2.140	- / -	- / -	- / -						
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -						
FY 2017	- / -	- / -	- / -	2 / 2.323	0 / 0.000	2 / 2.323						
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -						
Total	- / -	2 / 4.978	1 / 2.140	2 / 2.323	0 / 0.000	2 / 2.323						
<b>Installation Schedule</b>												
PYS	FY 2016				FY 2017				FY 2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
In	-	-	-	2	-	-	-	1	-	2	-	-
Out	-	-	-	-	-	2	-	-	-	1	-	2
<b>Footnotes:</b> (23) The time from procurement to installation varies due to: constantly shifting CVN availabilities, and the need to bundle procurements of several kits and do 2-year rolling obsolescence upgrade ECPs for each bundle. (24) FY 2017 CE 1.1.2-1.1.4 Cost to support Block I and Block I/ISNS fielded systems decreased as the number of Block I and Block I/ISNS fielded systems decreased. FY 2018 includes the funding for the installation of the final Block I/ISNS Kit aboard CVN-76. (25) Hardware obsolescence represents the organic work required to identify replacement components (and associated software) that have gone obsolete. Funding represents efforts to manage obsolescence in support of the procurement of ship sets. The identification, selection, and testing of the components is a two year process that recurs every two years to support the kit procurements. Also includes funding for the organic work to support the ECPs that will upgrade the fielded Block II ships to the rebaselined configuration. By 2019 all Block I and Block I/ISNS systems will be upgraded to Block II systems. Funding increases are in direct support of Block II system obsolescence and cybersecurity requirements due to the increased number of Block II systems that must be supported; increased from 3 systems on 3 carriers in FY14 to 11 systems on 11 carriers in FY19. Costs in FY18 and out show the increased emphasis on meeting Cybersecurity mandates and addressing systems integration requirements for Blk II. (26) Costs decreased in FY18 due to deferred engineering tasks that address mandated updates to Cyber security. Maintaining compliance is critical to retaining an Authority to Operate within the Fleet. (27) Costs decreased in FY18 for deferred recurring engineering involved with integrating ADMACS lab equipment. System Integration and Installation captures the organic support for maintaining and operating the Fleet Representative test lab. The cost element includes the procurement of any assets to update the lab and procure replacement components for equipment failures, as well as annual agreements necessary to keep the lab current and operating. (28) The 3 Block II upgrade kits procured in FY14 are shown under BLI 4216 Budget. They are part of the Oct 2013 Milestone Decision Authority approved re-baseline, which are Block II upgrade kits for currently fielded Block II systems. The kits procured in FY14 are planned to be installed as follows: 2 in FY16 (Blk II upgrade to CVN 71 and 75) and 1 in FY17 (Blk II upgrade to CVN69). Kit Installation schedule is based on ship availability. FY18: Kit buys increased in DON18 - From Qty 0 to Qty 2. Increase due to the system release upgrade fielding plan; need to procure 2 kits in FY18 for installation in FY19. Block II												

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3	<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment	<b>Modification Number / Title:</b> 2 / ALRE - ADMACS Block Upgrade (SJ302)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<p>Installations in FY18 and out are a part of an annual System Release Upgrade Fielding Plan that addresses software, cybersecurity, hardware, and obsolescence. Kit unit cost increased from FY17 due to more accurate cost estimates and further refinement of the system release upgrade strategy for ADMACS.</p> <p><sup>(29)</sup> The time from procurement to installation varies due to: 1) constantly shifting CVN availabilities, and 2) the need to bundle procurements of several kits and do 2-year rolling obsolescence upgrade ECPs for each bundle. ADMACS installation requires a 6 month ship availability, however CVN 76 is only available for 4 months in years before 2023. The higher cost associated with the CVN76 install in FY18 is due to additional government labor, contract cost, modification work OCONUS in Japan, and administrative coordination for two availabilities rather than one. The CVN 76 install quantity is shown in FY18.</p>		

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy					<b>Date:</b> May 2017	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3			<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment		<b>Modification Number / Title:</b> 4 / LAMPS MK III - SRQ(KU)-4 (S1010)	
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>		
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	13.972	19.959	18.910	24.914	0.000	24.914
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	13.972	19.959	18.910	24.914	0.000	24.914
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>13.972</b>	<b>19.959</b>	<b>18.910</b>	<b>24.914</b>	<b>0.000</b>	<b>24.914</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-
<p><b>Description:</b></p> <p>LAMPS MK III, AN/SRQ-4 (Ku), is an over the horizon information dominance system with a high speed, air-to-ground, digital data link that transmits reconnaissance and other data from MH-60 helicopters to surface ships (cruisers and destroyers) to enable data, imagery, electronic support measures, communications and radar information via the Ku-band link.</p> <p>Program provides for non-recurring engineering, procurement and associated installation and support of AN/SRQ-4(Ku) field install kits. This system encompasses hardware and software to transmit sensor data from the Light Airborne Multi-Purpose System (LAMPS) MK III MH-60R aircraft to the host ship classes.</p> <p>The FY 2018 request funds the procurement of 6 AN/SRQ-4(Ku) field install kits and associated support and installation costs to meet the MH-60R deployment schedule.</p> <p>Objective Inventory is 100 kits. (68 Destroyers [DDGs], 22 Cruisers [CGs], &amp; 10 Shore sites). Forty kits were procured and 22 kits installed in line item 4255. Fifty-five kits will be procured and 78 kits will be installed in line item 4213.</p> <p>Recurring Cost Element 1.1.1 FY 2017 increase in unit cost is due to a competitive procurement of AN/SRQ-4's as well as an increase in the unit cost due to losing the benefit from economic order quantities gained with simultaneous production buys of ARQ's via MH60R APN-1. ARQ Production buys complete in FY 2016. Since the SRQ's and ARQ's share a production line, fixed costs traditionally shared between the two program will be paid solely under the SRQ budget starting in FY 2017.</p> <p>Notes for installation schedule:</p> <ol style="list-style-type: none"> <li>Kits procured in Budget Line Item 4255 (FY 2014 and Prior) are being installed in this Budget Line Item commencing in FY 2015.</li> <li>Installations are subject to changes with ship availability schedules.</li> <li>Installation unit costs have been updated to reflect estimates based on actual install costs.</li> <li>The year-to-year unit installation cost varies significantly exceeding the projected yearly inflation rate. The varying unit cost is due to the hardware installation cost being dependent on quantity, location (i.e., Japan, Norfolk, San Diego, etc.), ship class (i.e., DDG or CG), Shipyard (i.e. Bath or Ingalls), ship baseline configuration (i.e., Navigation System installed, A-Kit pre-install), and ship availability period overlaps.</li> <li>Production lead time includes pre-installation checkouts, kitting with other installation hardware and drawings, and time to ship the hardware to the installation site.</li> </ol>						

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Exhibit P-3a, Individual Modification: FY 2018 Navy					Date: May 2017	
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3		P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment			Modification Number / Title: 4 / LAMPS MK III - SRQ(KU)-4 (S1010)	
ID Code (A=Service Ready, B=Not Service Ready) :				MDAP/MAIS Code:		
Models of Systems Affected: LAMPS MK III		Modification Type: Non-Organic			Related RDT&E PEs:	
Financial Plan	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement						
Modification Item 1 of 1: LAMPS MK III - SRQ(KU)-4 (S1010)						
B Kits						
Recurring						
1.1.1) SRQ(KU)-4 - NonOrganic <sup>(30)</sup>	27 / 5.039	7 / 9.977	5 / 9.377	6 / 11.129	- / -	6 / 11.129
Subtotal: Recurring	- / 5.039	- / 9.977	- / 9.377	- / 11.129	- / -	- / 11.129
Subtotal: LAMPS MK III - SRQ(KU)-4 (S1010)	27 / 5.039	7 / 9.977	5 / 9.377	6 / 11.129	- / -	6 / 11.129
Subtotal: Procurement, All Modification Items	- / 5.039	- / 9.977	- / 9.377	- / 11.129	- / -	- / 11.129
Support (All Modification Items)						
2.1) Data <sup>(31)</sup>	- / 0.334	- / 0.392	- / 0.752	- / 0.978	- / -	- / 0.978
2.2) Support Equipment <sup>(32)</sup>	- / 0.420	- / -	- / -	- / 1.087	- / -	- / 1.087
2.3) ILS	- / 0.617	- / 1.431	- / 1.463	- / 1.489	- / -	- / 1.489
2.4) Production Engineering <sup>(33)</sup>	- / 1.623	- / 0.977	- / 0.999	- / 1.988	- / -	- / 1.988
2.5) Acceptance Test & Evaluation <sup>(34)</sup>	- / 0.024	- / 0.060	- / 0.061	- / 0.207	- / -	- / 0.207
2.6) GFE	- / 0.587	- / 0.412	- / 0.472	- / 0.260	- / -	- / 0.260
Subtotal: Support	- / 3.605	- / 3.272	- / 3.747	- / 6.009	- / -	- / 6.009
Installation						
Modification Item 1 of 1: LAMPS MK III - SRQ(KU)-4 (S1010)	- / 5.328	- / 6.710	- / 5.786	- / 7.776	- / 0.000	- / 7.776
Subtotal: Installation	- / 5.328	- / 6.710	- / 5.786	- / 7.776	- / -	- / 7.776
Total						
Total Cost (Procurement + Support + Installation)	13.972	19.959	18.910	24.914	0.000	24.914

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<b>Exhibit P-3a, Individual Modification:</b> FY 2018 Navy						<b>Date:</b> May 2017							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3				<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment				<b>Modification Number / Title:</b> 4 / LAMPS MK III - SRQ(KU)-4 (S1010)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :						<b>MDAP/MAIS Code:</b>							
<b>Modification Item 1 of 1:</b> LAMPS MK III - SRQ(KU)-4 (S1010)													
<b>Manufacturer Information</b>													
Manufacturer Name: L3					Manufacturer Location: Salt Lake City, UT								
Administrative Leadtime (in Months): 5					Production Leadtime (in Months): 23								
<b>Dates</b>		<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018</b>					
Contract Dates		Mar 2016											
Delivery Dates		Feb 2018											
Manufacturer Name: TBD (Competitive Procurement) <sup>(35)</sup>					Manufacturer Location: TBD (Competitive Procurement)								
Administrative Leadtime (in Months): 5					Production Leadtime (in Months): 25								
<b>Dates</b>		<b>FY 2016</b>			<b>FY 2017</b>			<b>FY 2018</b>					
Contract Dates					Mar 2017			Mar 2018					
Delivery Dates					Apr 2019			Apr 2020					
<b>Installation Information</b>													
<b>Method of Implementation:</b> NAWCAD St. Inigoes Installation Team:: Installation Name: AN/SRQ-4 Installations													
<b>Installation Cost</b>		<b>Prior Years</b>		<b>FY 2016</b>		<b>FY 2017</b>		<b>FY 2018 Base</b>		<b>FY 2018 OCO</b>		<b>FY 2018 Total</b>	
		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)		Qty (Each) / Total Cost (\$ M)	
Prior Years		7 / 5.328		8 / 6.710		7 / 5.786		5 / 4.857		0 / 0.000		5 / 4.857	
FY 2016		- / -		- / -		- / -		3 / 2.919		0 / 0.000		3 / 2.919	
FY 2017		- / -		- / -		- / -		- / -		- / -		- / -	
FY 2018		- / -		- / -		- / -		- / -		- / -		- / -	
Total		7 / 5.328		8 / 6.710		7 / 5.786		8 / 7.776		0 / 0.000		8 / 7.776	
<b>Installation Schedule</b>													
	<b>PYS</b>	<b>FY 2016</b>				<b>FY 2017</b>				<b>FY 2018</b>			
		<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
In	7	-	3	2	3	2	1	2	2	3	2	1	2
Out	7	-	3	2	3	1	2	2	2	3	2	1	2
<b>Footnotes:</b>													
<sup>(30)</sup> Recurring Cost Element 1.1.1 SRQ(KU)-4, FY 2017 increase in unit cost is due to a competitive procurement of AN/SRQ-4's as well as losing the benefit from economic order quantities gained with simultaneous production buys of ARQ's via MH60R APN-1. ARQ Production buys complete in FY 2016. Since the SRQ's and ARQ's share a production line, fixed costs traditionally shared between the two program will be paid solely under the SRQ budget starting in FY 2017.													

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<b>Exhibit P-3a, Individual Modification: FY 2018 Navy</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3	<b>P-1 Line Item Number / Title:</b> 4213 / Aircraft Support Equipment	<b>Modification Number / Title:</b> 4 / LAMPS MK III - SRQ(KU)-4 (S1010)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>
<p><sup>(31)</sup> Cost Element 2.1, Data funding, supports ship installation documentation and Ship Change Proposals on multiple CG and DDG class ships scheduled for ship check and modernization changes as part of the fielding plan. Increase from FY 2017 to FY 2018 is due to the change of the Cruiser (CG) / Destroyer (DDG) mix of installs. This cost element provides the funds to procure the data packages a year prior to the ship installations. Data packages are significantly more expensive in CGs as compared to DDGs due to the age and individuality of the CGs.</p> <p><sup>(32)</sup> Cost Element 2.2, Support Equipment is for the procurement of Test Set-4120s that allows testing of the LAMPS MK III system without using a helicopter.</p> <p><sup>(33)</sup> Cost Element 2.4, Production Engineering increase from FY 2017 to FY 2018 due to fixed costs traditionally shared between the ARQ and SRQ program will be paid solely under the SRQ budget starting in FY 2018 due to final ARQ delivery occurring September 30, 2017.</p> <p><sup>(34)</sup> Recurring Cost Element 2.5, Acceptance Test &amp; Evaluation increase from FY 2017 to FY 2018 due to fixed costs traditionally shared between the ARQ and SRQ program will be paid solely under the SRQ budget starting in FY 2018 due to final ARQ delivery occurring September 30, 2017.</p> <p><sup>(35)</sup> FY 2017 production lead time increased due to the risk associated with the possibility of a new contractor.</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment							<b>P-1 Line Item Number / Title:</b> 4217 / Advanced Arresting Gear (AAG)					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> 0204112N				<b>Other Related Program Elements:</b> 0604512N				
<b>Line Item MDAP/MAIS Code:</b> 529												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.000	0.000	0.000	10.900	0.000	10.900	11.200	4.800	3.200	2.522	284.100	316.722
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	0.000	0.000	0.000	10.900	0.000	10.900	11.200	4.800	3.200	2.522	284.100	316.722
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>10.900</b>	<b>0.000</b>	<b>10.900</b>	<b>11.200</b>	<b>4.800</b>	<b>3.200</b>	<b>2.522</b>	<b>284.100</b>	<b>316.722</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Description:</b> This budget line item funds the procurement for Advanced Arresting Gear (AAG) life cycle support modifications and upgrades required aboard Ford Class Carriers, Jet Car Track Site (JCTS) and Runway Arrested Landing Site (RALS) systems. Modifications included in the budget support fatigue life, obsolescence and performance enhancements to ensure the system remains operational throughout the life of the program. AAG will replace Mark 7 arresting gear aboard Ford Class aircraft carriers and will provide the U.S. Navy with the ability to recover existing and projected aircraft carrier based tail-hook equipped air vehicles well into the 21st century. AAG will enhance operational capability, provide increased operational availability, while reducing manning, maintenance and support costs. AAG is installed aboard CVN78 as well as two land based test sites JCTS and RALS.  FY2017 and prior funded under Aircraft Support Equipment (BLI 4213, and BLI 4216).												
<b>Justification:</b> FY2018 baseline funding is required for post-delivery life cycle Water Twister improvement upgrade, and to address hardware obsolescence ECP's for the Advanced Arresting Gear (AAG).												

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment							<b>P-1 Line Item Number / Title:</b> 4226 / Meteorological Equipment					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A				<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	94.704	14.997	29.253	21.137	0.000	21.137	21.669	40.947	46.331	26.091	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	94.704	14.997	29.253	21.137	0.000	21.137	21.669	40.947	46.331	26.091	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>94.704</b>	<b>14.997</b>	<b>29.253</b>	<b>21.137</b>	<b>0.000</b>	<b>21.137</b>	<b>21.669</b>	<b>40.947</b>	<b>46.331</b>	<b>26.091</b>	<b>Continuing</b>	<b>Continuing</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	0.267	0.169	0.001	-	0.001	0.216	0.256	0.309	0.276	Continuing	Continuing
Flyaway Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Thousands</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Description:</b> <p>The Meteorological Equipment budget line item provides new and replacement meteorological equipment for Navy and Marine Corps Air Stations, Navy ships, United States Marine Corps (USMC) Operational Force units and other activities required to provide weather observations and provide safety of flight capabilities. It also provides new Intelligence Preparation of the Operational Environment (IPOE) equipment for submarines. The Meteorological Equipment procurement has been coordinated with other Department of Defense (DoD) and civilian agencies. Equipment is funded under the following programs:</p> <p>[P40A / SP051 Satellite Receiver Upgrades (Space)]: Environmental satellite receivers used to receive and process remotely sensed data from the Defense Meteorological Satellite Program (DMSP) satellites, the National Oceanic and Atmospheric Administration (NOAA) satellites, the Defense Weather Satellite System (DWSS), which has replaced Joint Polar-orbiting Satellite System (JPSS), the Geostationary Operational Environmental Satellites (GEOSAT), the GEOSAT Follow-On satellite, and the Geostationary Satellite Families (GOES-R). The evolutionary upgrades will enhance weather service capabilities to receive and pre-process additional environmental satellite data, comply with open systems architecture standards, and provide for antenna and processor replacement. Specifically, in the remote sensing efforts, integration of next generation of polar and geostationary orbiting satellite families and new sensors of opportunity are incorporated in hardware design and software development into existing systems.</p> <p>[P40A / SP190 TESS/NITES]: Tactical Environmental Support System/Naval Integrated Tactical Environmental System (TESS/NITES), procurement of Mobile Tactical Systems technology refresh and rapidly deploy highly specialized Government Owned Tactical Software to USN and USMC forward deployed units around the globe. TESS/NITES systems provide support to aviation flight safety, operations strike missions, shipboard safety of navigation, USMC ground forces, special operations, and multi-spectral asymmetric warfare.</p> <p>[P40A / SP400 METOC Satellite Data Exploitation Readiness]: Readiness for planned next-generation polar-orbiting and geostationary satellites will require the procurement and installation of software and hardware products necessary to accommodate the significantly increased data stream from advanced instruments as compared with the previous Defense Meteorological Satellite Program, Polar-orbiting Operational Environmental Satellite, and geostationary satellites. The Navy Production Centers at Fleet Numerical Meteorology and Oceanography Center (FLENUMMETOCCEN), Monterey, CA, and the Naval Oceanographic Office (NAVOCEANO), Stennis Space Center, MS, require upgrades of their Storage Area Networks (SAN) and increased data processing capability for their assimilation, analysis and forecasting systems. Procurements concluded in FY16.</p> <p>[P40A / SP550 METOC SASC Upgrades]: Procurement of Government Off-The-Shelf/Commercial Off-The-Shelf hardware, associated software upgrades for the 67 fielded Automated Surface Observing Systems (ASOS), and the 9 fielded Supplemental Weather Radars (SWR). Both atmospheric sensing systems are essential for aviation safety, Naval Aviation operations, and resource protection. ASOS procurements under this project will provide required system upgrades as required by the National Weather Service Interagency Agreement.</p>												

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		<b>P-1 Line Item Number / Title:</b> 4226 / Meteorological Equipment
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>[P40A / SP600 Littoral Battlespace Sensors - Unmanned Undersea Vehicles (LBS-UUV)]: Procures Unmanned Undersea Vehicle (UUV) ocean sensor systems. These include electrical powered, short duration (~days) Autonomous Undersea Vehicles (AUV) and long duration (~months) buoyancy driven ocean Gliders which carry sensors that characterize the ocean bottom (bathymetry, imagery, etc.) and sense ocean volume parameters (conductivity, temperature, depth, optical clarity, currents, etc.). The AUV submarine variant (AUV(S)) will provide Intelligence Preperation of the Operational Environment (IPOE) payload capabilities for submarine launched missions. The AUVs are preprogrammed with mission profiles and once launched are totally autonomous. The Ocean Gliders are controlled remotely from the Naval Oceanographic Office (NAVOCEANO), Stennis Space Center, Mississippi from the Glider Operations Center (GOC).</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						<b>P-1 Line Item Number / Title:</b> 4226 / Meteorological Equipment				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> N/A			
<b>Line Item MDAP/MAIS Code:</b> N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 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	Meteorological Equipment				- / 94.704	- / 14.996	- / 29.253	- / 21.137	- / -	- / 21.137
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 94.704</b>	<b>- / 14.997</b>	<b>- / 29.253</b>	<b>- / 21.137</b>	<b>- / 0.000</b>	<b>- / 21.137</b>
<small>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</small>										
<small>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</small>										

**Justification:**

The primary focus of FY18 request is the Littoral Battlespace Sensors-Unmanned Undersea Vehicles (LBS-UUV) which consist of 18 ocean Gliders, 2 LBS-Autonomous Undersea Vehicle (Submarine variant) (LBS-AUV(S)) and one Dry Deck Shelter (DDS) Submarine Support Systems. The program will continue upgrades/backfits for LBS Gliders and Glider replacement units. The FY18 request supports procurements of Satellite Receiver Upgrades (Space) for Environmental Satellite data Receivers/Processors. Funds also support the Meteorological and Oceanographic Surface-based Atmospheric Sensing Capability (METOC SASC) family of systems.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3									P-1 Line Item Number / Title: 4226 / Meteorological Equipment						Aggregated Items Title: Meteorological Equipment					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) SP051 Satellite Receiver Upgrades (Space) <sup>(1)</sup>																				
1.1) AN/FMQ-17 GOES-R Antenna/ Pedestal	A		-	-	-	-	-	-	-	-	-	789.000	1	0.789	-	-	-	789.000	1	0.789
1.2) AN/FMQ-17 Himawari Receiver Processor <sup>(2)</sup>	A		-	-	-	-	-	-	-	-	-	196.000	1	0.196	-	-	-	196.000	1	0.196
1.3) AN/FMQ-17 Satellite Receiver Upgrade Kit <sup>(3)</sup>	A		70.167	18	1.263	440.000	1	0.440	449.000	1	0.449	-	-	-	-	-	-	-	-	-
1.4) AN/SMQ-11 Satellite Receiver Upgrade Kit	A		50.739	23	1.167	-	-	-	551.000	1	0.551	524.000	1	0.524	-	-	-	524.000	1	0.524
1.5) AN/FMQ-17 Antenna Positioner Upgrade Kit	A		-	-	-	245.000	1	0.245	251.000	1	0.251	-	-	-	-	-	-	-	-	-
1.6) AN/SMQ-11 Antenna Pedestal Upgrade Kit	A		173.333	27	4.680	962.000	1	0.962	1,077.000	1	1.077	939.000	1	0.939	-	-	-	939.000	1	0.939
Subtotal: 1) SP051 Satellite Receiver Upgrades (Space)			-	-	7.110	-	-	1.647	-	-	2.328	-	-	2.448	-	-	-	-	-	2.448
2) SP190 TESS/NITES <sup>(4)</sup>																				
2.1) Mobile Tactical System	A		-	-	-	4.867	457	2.224	-	-	-	-	-	-	-	-	-	-	-	-
2.2) Hardware Components	A		-	-	-	1.007	154	0.155	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) SP190 TESS/NITES			-	-	0.000	-	-	2.379	-	-	-	-	-	-	-	-	-	-	-	-
3) SP200 Hazardous Weather Detection & Display Capability (HWDDC)																				
3.1) SPS-48E/G Variant	A		230.000	10	2.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) SP200 Hazardous Weather Detection & Display Capability (HWDDC)			-	-	2.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4) SP400 METOC Satellite Data Exploitation Readiness <sup>(5)</sup>																				
4.1) FNMOC Upgrades	A		1,316.800	5	6.584	1,114.000	1	1.114	-	-	-	-	-	-	-	-	-	-	-	-
4.2) NAVOCEANO Upgrades	A		747.800	5	3.739	902.000	1	0.902	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) SP400 METOC Satellite Data Exploitation Readiness			-	-	10.323	-	-	2.016	-	-	-	-	-	-	-	-	-	-	-	-
5) SP550 METOC SASC Upgrades																				
5.1) ASOS Upgrades <sup>(6)</sup>	A		41.116	275	11.307	55.880	50	2.794	48.771	48	2.341	77.606	33	2.561	-	-	-	77.606	33	2.561

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<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy</b>																<b>Date: May 2017</b>				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3								<b>P-1 Line Item Number / Title:</b> 4226 / Meteorological Equipment								<b>Aggregated Items Title:</b> Meteorological Equipment				
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
5.2) SWR Upgrades (7)	A		42.413	63	2.672	51.000	16	0.816	58.533	15	0.878	118.500	12	1.422	-	-	-	118.500	12	1.422
<b>Subtotal: 5) SP550 METOC SASC Upgrades</b>			-	-	13.979	-	-	3.610	-	-	3.219	-	-	3.983	-	-	-	-	-	3.983
<b>6) SP600 Littoral Battlespace Sensors - Unmanned Undersea Vehicles (LBS-UUV) <sup>(8)</sup></b>																				
6.1) Littoral Battlespace Sensors - Gliders (LBS-G)	A		165.493	142	23.500	170.000	22	3.740	187.398	20	3.748	193.717	18	3.487	-	-	-	193.717	18	3.487
6.2) Littoral Battlespace Sensors - Autonomous Undersea Vehicles (LBS-AUV)	A		2,977.000	5	14.885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3) Autonomous Undersea Vehicles (Submarine) AUV(S)	A		-	-	-	-	-	-	2,060.000	4	8.240	2,098.000	2	4.196	-	-	-	2,098.000	2	4.196
6.4) Littoral Battlespace Sensors - (LBS-AUV) Shipset	A		1,950.000	2	3.900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.5) Autonomous Undersea Vehicles (Submarine) - AUV(S) DDS Sub Spt Sys	A		-	-	-	-	-	-	3,030.000	3	9.090	3,090.600	1	3.091	-	-	-	3,090.600	1	3.091
6.8) UUV Upgrades/ Backfits	A		-	-	1.825	-	-	1.113	-	-	0.501	-	-	0.884	-	-	-	-	-	0.884
<b>Subtotal: 6) SP600 Littoral Battlespace Sensors - Unmanned Undersea Vehicles (LBS-UUV)</b>			-	-	44.110	-	-	4.853	-	-	21.579	-	-	11.658	-	-	-	-	-	11.658
<b>7) METMF (R) NEXGEN</b>																				
7.1) METMF (R) NEXGEN/Subsystems	A		1,542.857	7	10.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal: 7) METMF (R) NEXGEN</b>			-	-	10.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>8) SP555 Production Support</b>																				
8.1) TESS/NITES	A		-	-	-	-	-	0.121	-	-	-	-	-	-	-	-	-	-	-	-
8.2) Satellite Receiver Upgrades	A		-	-	0.360	-	-	0.076	-	-	0.129	-	-	0.147	-	-	-	-	-	0.147
8.3) LBS-UUV	A		-	-	2.392	-	-	0.208	-	-	0.867	-	-	0.785	-	-	-	-	-	0.785
<b>Subtotal: 8) SP555 Production Support</b>			-	-	2.752	-	-	0.405	-	-	0.996	-	-	0.932	-	-	-	-	-	0.932
<b>9) SP776 Non-FMP</b>																				
9.1) Satellite Receiver Upgrades	A		-	-	1.238	-	-	-	-	-	0.701	-	-	0.051	-	-	-	-	-	0.051
<b>Subtotal: 9) SP776 Non-FMP</b>			-	-	1.238	-	-	-	-	-	0.701	-	-	0.051	-	-	-	-	-	0.051
<b>10) SP777 FMP</b>																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4226 / Meteorological Equipment								Aggregated Items Title: Meteorological Equipment					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
10.1) LBS-AUV(S) DSA	A		-	-	-	-	-	-	-	-	-	-	-	1.291	-	-	-	-	-	1.291
10.3) Satellite Receiver Upgrades	A		-	-	2.092	-	-	0.086	-	-	0.430	-	-	0.774	-	-	-	-	-	0.774
Subtotal: 10) SP777 FMP			-	-	2.092	-	-	0.086	-	-	0.430	-	-	2.065	-	-	-	-	-	2.065
Total			-	-	94.704	-	-	14.996	-	-	29.253	-	-	21.137	-	-	-	-	-	21.137

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

**Footnotes:**

(1) SP051/SP555/SP776/SP777 Satellite Receiver Upgrades (Space) has changed PB 16 and PB 17 Average Unit Cost (AUC) and quantities for AN/FMQ-17 and AN/SMQ-11 Satellite Receiver Upgrade Kits and Antenna Positioner/Pedestal Upgrade Kits to correct erroneous reporting and incorporate a program re-baseline. The Program re-baseline reflects the realigning of costs to new hardware for AN/FMQ-17 GOES-R Antenna/Pedestal and AN/FMQ-17 Himawari Receiver Processor since new hardware was needed to support new sensor and view capability. A redirection of resources from SP400 METOC Satellite Data Exploitation Readiness to SP051 Satellite Receiver Upgrades (Space) was needed to support the new sensor and view capability for the Satellite Receiver Upgrades. Quantities represent the number of sites/platforms upgraded annually.

(2) The FY18 Average Unit Cost (AUC) for the AN/FMQ-17 Himawari Receiver Processor represents the initial procurement cost for this receiver.

(3) FY18 AN/FMQ-17 Satellite Receiver Upgrade Kits costs are realigned to the new cost elements for AN/FMQ-17 GOES-R and AN/FMQ-17 Himawari Receiver Processor since new hardware was needed to support sensor and view capability.

(4) TESS/NITES Mobile Tactical Systems and hardware components are loaded and configured with specialized GOTS METOC Tactical Decision Aid software and forward deployed with USN and USMC forward operating units afloat and ashore.

(5) Quantities and unit costs represent upgrades to the super computers at the two METOC Production Centers: the Fleet Numerical Meteorology and Oceanography Center (FLENUMMETOCCEN) and the Naval Oceanographic Office (NAVOCEANO). Upgrades consist of data processing and communications hardware and vary annually depending on the launch of various Navy, joint, interagency, and international METOC satellite systems. Unit costs represent the average unit cost of each planned Hardware/Software procurement or refresh procured from various vendors which varies based on subsystem, site or platform. NAVOCEANO and FLENUMMETOCCEN procure computer system hardware through SPAWAR 2.0 via 8a vendor contracts.

(6) Quantities represent the number of GOTS/COTS hardware and associated software for installed Automated Surface Observing System (ASOS) equipment upgrades. Multiple upgrades may occur at a single site in a given year. The variance in unit costs between FY17 and FY18 is due to additional DISA cyber-security requirements needed for the ACU Phase I (hardware and software) upgrades. In FY17, 48 ACU Phase I upgrades were procured for an average unit cost of \$49K. However, beginning in FY18, the ACU Phase I upgrades include additional Data Center Processing (DCP) hardware and software, as well as upgraded ACU software and firmware, thereby increasing the unit cost of the ACU Phase I upgrades. In FY18, 33 ACU Phase I (hardware and software) upgrades will be procured for an average unit cost of \$78K.

(7) Quantities represent the number of GOTS/COTS hardware and associated software for installed Supplemental Weather Radar (SWR) equipment upgrades. Multiple upgrades may occur at a single site in a given year. SWR Upgrades - FY 2018 quantities represent 2 RCU replacements and 10 replacement workstation procurements. The variance in unit costs between FY17 and FY18 is due to the additional requirement to procure workstations that can process Doppler Radar data beginning in FY18. FY17 procurements included Digital Stalo Upgrades, which have a lower unit cost than the workstations. FY 18 procurements include replacement workstations, along with RCU replacements. The unit cost for RCU replacements is \$145K.

(8) Littoral Battlespace Sensors - Autonomous Undersea Vehicles (LBS-AUV) are broken out between AUV units and AUV Shipsets. Shipsets consist of the operation van, maintenance van, and launch & recovery system. AUV (Submarine) (AUV(S)) launched variants include AUV(S) vehicles, AUV(S) Dry-deck Shelter (DDS) Submarine Support Systems, Torpedo-tube Launch (TTL) Submarine Support Systems and TTL Safecaps. AUV(S) DDS Submarine Support Systems consist of operational and maintenance equipment including launch, mooring and submarine modification kits for DDS operations. AUV(S) TTL Submarine Support Systems consist of operational and maintenance equipment including launch, mooring and submarine modification kits for TTL operations. The AUV(S) TTL Safecap consists of operational and maintenance equipment required to safely ship, stow, and deploy an AUV with lithium batteries from a submarine torpedo tube. Littoral Battlespace Sensors - Gliders (LBS-G) FY18 quantities represent replacement units. LBS-UUV Upgrades/Backfits represent AUV and Glider system improvements via back-fits and forward-fits.



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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment							<b>P-1 Line Item Number / Title:</b> 4242 / DCRS/DPL					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A				<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	97.150	0.638	0.632	0.660	0.000	0.660	0.674	0.695	0.711	0.725	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	97.150	0.638	0.632	0.660	0.000	0.660	0.674	0.695	0.711	0.725	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>97.150</b>	<b>0.638</b>	<b>0.632</b>	<b>0.660</b>	<b>0.000</b>	<b>0.660</b>	<b>0.674</b>	<b>0.695</b>	<b>0.711</b>	<b>0.725</b>	<b>Continuing</b>	<b>Continuing</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	0.069	0.155	0.090	-	0.090	0.080	0.118	0.005	0.005	Continuing	Continuing
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<p><b>Description:</b>            Digital Camera Receiving Station (DCRS) The Naval Air Systems Command is tasked to support digital imagery shipboard photographic requirements (Chief of Naval Operations (CNO) Memo Ser 09B/2U2501983 of 23 Oct 92 applies).</p> <p>The DCRS is a combat system located in the Carrier Intelligence Center that processes classified Bomb Hit Assessment and target imagery. DCRS supports near real-time over-the-horizon imagery transfer, as well as post-mission playback of imagery obtained from aircraft sensors. DCRS is a rack system with a multiple PC workstations for video editing and playback, media receptacles for aircraft data transfer devices, and communications equipment to support Fast Tactical Imagery. Equipment and software are updated through field change/tech refresh installations scheduled every three years for each Carrier Vessel/Carrier Vessel Nuclear (CV/CVN).</p>												
<p><b>Justification:</b>            FY 2018 funds the baseline program for DCRS. DCRS supports near real-time over-the-horizon imagery transfer, as well as post-mission playback of imagery obtained from aircraft sensors.</p>												

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment							<b>P-1 Line Item Number / Title:</b> 4248 / Aviation Mine Countermeasures					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A				<b>Other Related Program Elements:</b> 0604373N				
<b>Line Item MDAP/MAIS Code:</b> N/A												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	435.369	14.098	29.097	20.605	0.000	20.605	10.878	6.733	5.244	5.345	-	527.369
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	435.369	14.098	29.097	20.605	0.000	20.605	10.878	6.733	5.244	5.345	-	527.369
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>435.369</b>	<b>14.098</b>	<b>29.097</b>	<b>20.605</b>	<b>0.000</b>	<b>20.605</b>	<b>10.878</b>	<b>6.733</b>	<b>5.244</b>	<b>5.345</b>	<b>-</b>	<b>527.369</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	1.368	0.486	0.733	-	0.733	0.373	-	-	-	-	2.960
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Airborne Mine Countermeasures (AMCM) Equipment is currently deployed on MH-53E helicopters to counter the threat of sea mines. The MH-60S helicopter will be adapted for the AMCM mission in support of the development of an Organic Fleet AMCM program. The equipment is divided into three categories -- minesweeping, minehunting and mine neutralization. (1) Minesweeping is performed by mechanical or influence sweeps. In mechanical sweeping, the mine mooring is severed by the sweep gear allowing the mine to float to the surface where it is destroyed. In influence sweeping, a magnetic or acoustic field which simulates the magnetic/acoustic signature of a ship is introduced into the water. This field causes the mine mechanism to actuate. (2) In minehunting, the object is to actually locate and classify mine-like objects (usually by means of high resolution sonar). (3) Then neutralize mines using explosive devices. AMCM squadrons currently have mechanical, magnetic, and acoustic sweeping capabilities, and mine surveillance and marking capabilities. Their mission is to locate, classify, identify and neutralize moored, surface and bottom mines.

Current world mining threats have resulted in increased operational demand of systems to perform AMCM missions. Fleet requires increased AMCM capability to address warfighting gaps and the reliability, maintainability, and availability of critical systems to perform world-wide operations. Program provides systems to address a global threat and serve to deter placement of mines to allow ships to transit freely. Lack of AMCM capability will result in loss of the Fleet's ability to conduct freedom of maneuver, increasing risk to ships while operating in mine threat areas.

Modifications: Funds will support the modification and product improvements of Airborne Mine Countermeasures (AMCM) systems to accommodate replacement of subsystems/components because of safety, maintainability, reliability and obsolescence issues. Engineering Change Proposals (ECPs) are analyzed, prioritized and screened to accommodate replacement of subsystems/components. Funding for this effort is designated in all fiscal years.

AN/AQS-24 sonar: Funds support an in-service mine detection system that detects, classifies, localizes, and identifies sea mines. The sonar sensor is deployed from the MH-53E helicopter and is used against moored and bottom mines. AN/AQS-24B provides High Speed Synthetic Aperture Sonar (SAS). AN/AQS-24C provides Volume Search Capability.

The MK-105 MOD 4 magnetic mine-sweeping system: Funds supported a hydrofoil platform that carries a turbo-generator power pack and is towed by the MH-53E helicopter, allowing for safe, high speed sweeping of coarse magnetic influence mines at twice the output of current capability.

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		<b>P-1 Line Item Number / Title:</b> 4248 / Aviation Mine Countermeasures
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> 0604373N
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>AN/ASQ-235 Airborne Mine Neutralization System (AMNS): Funds support a mine neutralization system that provides a remotely controlled expendable neutralizer vehicle deployed from the MH-60S and MH-53E helicopter platform to reacquire, identify, and neutralize moored or proud bottom sea mines. Note: AMNS procured for the Littoral Combat Ship (LCS) Mine counter measure (MCM) mission package (MP) are funded under BLI 1601.</p> <p>AN/AES-1 Airborne Laser Mine Detection System (ALMDS): Funds support a mine detection system that provides a light detection and ranging (LIDAR) system for rapid detection, classification, and localization of near surface sea mines. It is deployed on the MH-60S helicopter as part of the Organic Airborne Mine Countermeasures (OAMCM) suite of systems. Note: ALMDS procured for the LCS MCM MP are funded under BLI 1601.</p> <p>Organic Airborne Mine Countermeasure (OAMCM) Support Equipment: Funds supported organic post mission analysis (OPMA) software to all OAMCM and AN/AQS-24A systems as well as the Surface Navy Integrated Undersea Tactical Technology (SNIUTT) system to develop AN/SQQ-32 and AN/AQS-24 sensor training modules.</p> <p>This procurement line supports the AMNS and ALMDS program of record, delivering AMNS and ALMDS systems to Navy helicopter wings to provide initial proficiency training to Navy aircrews. AMNS and ALMDS systems are also procured under BLI 1601 LCS MCM Mission Modules.</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						<b>P-1 Line Item Number / Title:</b> 4248 / Aviation Mine Countermeasures				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): A				<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> 0604373N			
<b>Line Item MDAP/MAIS Code:</b> N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Exhibit Type	Title*	Subexhibits	ID CD	MDAP/MAIS Code	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / MODIFICATIONS				- / 75.250	- / 3.227	- / 4.843	- / 4.622	- / 0.000	- / 4.622
P-5	2 / AN/AQS-24 Sonar	P-5a			- / 62.024	- / 1.771	- / 18.819	- / 7.391	- / 0.000	- / 7.391
P-5	3 / MK-105				- / 20.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
P-5	4 / AMNS				- / 56.582	- / 6.800	- / 5.435	- / 7.284	- / 0.000	- / 7.284
P-5	5 / ALMDS [ALMDS]				- / 106.419	- / 2.300	- / 0.000	- / 1.308	- / 0.000	- / 1.308
P-5	6 / OAMCM [OAMCM]				- / 115.094	- / 0.000	- / 0.000	- / 0.000	- / 0.000	- / 0.000
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 435.369</b>	<b>- / 14.098</b>	<b>- / 29.097</b>	<b>- / 20.605</b>	<b>- / 0.000</b>	<b>- / 20.605</b>
<p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>										
<p><b>Justification:</b>  FY 2018 funding supports the AMCM baseline program, to include the procurement of two AN/AQS-24 C upgrade kits, required hardware and software upgrades for the Airborne Mine Neutralization System (AMNS) and the Airborne Laser Mine Detection System (ALMDS), as well as support equipment for ALMDS. Funding is also included for modifications, product improvements and engineering change proposals of the AMNS, ALMDS and AN/AQS-24 systems. These capabilities will be deployed around the world to meet the current operational mine warfare mission demand.</p>										

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017							
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 1 / MODIFICATIONS							
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total					
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-					
Gross/Weapon System Cost <i>(\$ in Millions)</i>				75.250		3.227		4.843		4.622		0.000		4.622					
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Net Procurement (P-1) <i>(\$ in Millions)</i>				75.250		3.227		4.843		4.622		0.000		4.622					
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Total Obligation Authority <i>(\$ in Millions)</i>				75.250		3.227		4.843		4.622		0.000		4.622					
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																			
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-					
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-					
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																			
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - S0020 MODIFICATIONS Cost																			
Recurring Cost																			
1.1.1) S0020 - MODIFICATION		-	-	75.250	-	-	3.227	-	-	4.843	-	-	4.622	-	-	0.000	-	-	4.622
Subtotal: Recurring Cost		-	-	75.250	-	-	3.227	-	-	4.843	-	-	4.622	-	-	0.000	-	-	4.622
Subtotal: Hardware - S0020 MODIFICATIONS Cost		-	-	75.250	-	-	3.227	-	-	4.843	-	-	4.622	-	-	0.000	-	-	4.622
Gross/Weapon System Cost		-	-	75.250	-	-	3.227	-	-	4.843	-	-	4.622	-	-	0.000	-	-	4.622

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 2 / AN/AQS-24 Sonar						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				62.024		1.771		18.819		7.391		0.000		7.391				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				62.024		1.771		18.819		7.391		0.000		7.391				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				62.024		1.771		18.819		7.391		0.000		7.391				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - S0024 AN/AQS-24 Sonar Cost																		
Recurring Cost																		
1.1.1) AN/AQS-24B - upgrade kit	2,126K	27	57.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) AN/AQS-24C - Upgrade kit <sup>(†)</sup>	-	-	0.000	-	-	0.000	2,352K	8	18.819	2,518K	2	5.035	-	-	0.000	2,518K	2	5.035
1.1.3) Training Equipment	4,624K	1	4.624	-	-	1.296	-	-	0.000	-	-	1.871	-	-	0.000	-	-	1.871
1.1.4) ILS/Tech Pubs	-	-	0.000	-	-	0.475	-	-	0.000	-	-	0.485	-	-	0.000	-	-	0.485
Subtotal: Recurring Cost	-	-	62.024	-	-	1.771	-	-	18.819	-	-	7.391	-	-	0.000	-	-	7.391
Subtotal: Hardware - S0024 AN/AQS-24 Sonar Cost	-	-	62.024	-	-	1.771	-	-	18.819	-	-	7.391	-	-	0.000	-	-	7.391
Gross/Weapon System Cost	-	-	62.024	-	-	1.771	-	-	18.819	-	-	7.391	-	-	0.000	-	-	7.391
(†) indicates the presence of a P-5a																		

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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3			P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 2 / AN/AQS-24 Sonar			
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.2) AN/AQS-24C - Upgrade kit		2017	Northrop Grumman (Annapolis, MD) / Annapolis	C / FFP	NAVSEA	Jul 2017	Jan 2019	8	2,352K	Y		
1.1.2) AN/AQS-24C - Upgrade kit		2018	Northrop Grumman (Annapolis, MD) / Annapolis	SS / FFP	NAVSEA	May 2018	Nov 2019	2	2,518K	Y		



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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures							Item Number / Title [DODIC]: 3 / MK-105							
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:											
Resource Summary				Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
Procurement Quantity ( <i>Units in Each</i> )				-			-			-			-			-			-		
Gross/Weapon System Cost ( <i>\$ in Millions</i> )				20.000			0.000			0.000			0.000			0.000			0.000		
Less PY Advance Procurement ( <i>\$ in Millions</i> )				-			-			-			-			-			-		
Net Procurement (P-1) ( <i>\$ in Millions</i> )				20.000			0.000			0.000			0.000			0.000			0.000		
Plus CY Advance Procurement ( <i>\$ in Millions</i> )				-			-			-			-			-			-		
Total Obligation Authority ( <i>\$ in Millions</i> )				20.000			0.000			0.000			0.000			0.000			0.000		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares ( <i>\$ in Millions</i> )				-			-			-			-			-			-		
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total				
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)		
Hardware - S0061 - MK-105 MOD 4 Cost																					
Recurring Cost																					
1.1.1) MK-105 MOD 4		16,600K	1	16.600	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
1.1.2) Production Line Set-Up		-	-	3.400	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Recurring Cost		-	-	20.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - S0061 - MK-105 MOD 4 Cost		-	-	20.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Gross/Weapon System Cost		-	-	20.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 4 / AMNS						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				56.582		6.800		5.435		7.284		0.000		7.284				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				56.582		6.800		5.435		7.284		0.000		7.284				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				56.582		6.800		5.435		7.284		0.000		7.284				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - S0065 - AMNS Cost																		
Recurring Cost																		
1.1.1) AMNS	2,116K	17	35.965	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) AMNS (MH-53E)	-	-	3.860	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.3) PRODUCTION ENGINEERING	-	-	2.587	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.4) TRAINING EQUIPMENT	-	-	4.967	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.5) ILS/PUBS/ TECH DATA	-	-	2.089	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.6) SUPPORT EQUIPMENT	-	-	7.114	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.7) ECP (HW/SW) and Upgrades	-	-	0.000	-	-	6.800	-	-	5.435	-	-	7.284	-	-	0.000	-	-	7.284
Subtotal: Recurring Cost	-	-	56.582	-	-	6.800	-	-	5.435	-	-	7.284	-	-	0.000	-	-	7.284
Subtotal: Hardware - S0065 - AMNS Cost	-	-	56.582	-	-	6.800	-	-	5.435	-	-	7.284	-	-	0.000	-	-	7.284
Gross/Weapon System Cost	-	-	56.582	-	-	6.800	-	-	5.435	-	-	7.284	-	-	0.000	-	-	7.284

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 5 / ALMDS [ALMDS]						
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:									
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				106.419		2.300		0.000		1.308		0.000		1.308				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				106.419		2.300		0.000		1.308		0.000		1.308				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				106.419		2.300		0.000		1.308		0.000		1.308				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - S0075 - ALMDS Cost																		
Recurring Cost																		
1.1.1) ALMDS	7,354K	12	88.247	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.2) PRODUCTION ENGINEERING	-	-	8.776	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.3) PRODUCTION ECP (HW/SW)	-	-	5.235	-	-	2.300	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.4) TRAINING EQUIPMENT	-	-	0.976	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.5) ILS/PUBS/ TECH DATA	-	-	2.429	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
1.1.6) SUPPORT EQUIPMENT	-	-	0.756	-	-	0.000	-	-	0.000	-	-	1.308	-	-	0.000	-	-	1.308
Subtotal: Recurring Cost	-	-	106.419	-	-	2.300	-	-	0.000	-	-	1.308	-	-	0.000	-	-	1.308
Subtotal: Hardware - S0075 - ALMDS Cost	-	-	106.419	-	-	2.300	-	-	0.000	-	-	1.308	-	-	0.000	-	-	1.308
Gross/Weapon System Cost	-	-	106.419	-	-	2.300	-	-	0.000	-	-	1.308	-	-	0.000	-	-	1.308

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures						Item Number / Title [DODIC]: 6 / OAMCM [OAMCM]								
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:											
Resource Summary				Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
Procurement Quantity <i>(Units in Each)</i>				-			-			-			-			-			-		
Gross/Weapon System Cost <i>(\$ in Millions)</i>				115.094			0.000			0.000			0.000			0.000			0.000		
Less PY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Net Procurement (P-1) <i>(\$ in Millions)</i>				115.094			0.000			0.000			0.000			0.000			0.000		
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Total Obligation Authority <i>(\$ in Millions)</i>				115.094			0.000			0.000			0.000			0.000			0.000		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total				
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)		
Hardware - S0090 - OAMCM Support Equipment Cost																					
Recurring Cost																					
1.1.1) OPMA		-	-	1.668	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
1.1.2) SNIUTT		-	-	1.380	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
1.1.3) ORCA		3,098K	2	6.195	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
1.1.4) Tow Cables		125,000.00	20	2.500	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Recurring Cost		-	-	11.743	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - S0090 - OAMCM Support Equipment Cost		-	-	11.743	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Hardware - Prior Years Cost																					
Recurring Cost																					
2.1.1) Prior Years Cumulative Funding		-	-	103.351	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Recurring Cost		-	-	103.351	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - Prior Years Cost		-	-	103.351	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Gross/Weapon System Cost		-	-	115.094	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy										<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment							<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment					
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B				<b>Program Elements for Code B Items:</b> N/A				<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A												
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018 Base</b>	<b>FY 2018 OCO</b>	<b>FY 2018 Total</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>To Complete</b>	<b>Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	48.611	48.773	39.099	34.032	29.245	63.277	32.742	46.073	47.389	62.299	Continuing	Continuing
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) ( <i>\$ in Millions</i> )	48.611	48.773	39.099	34.032	29.245	63.277	32.742	46.073	47.389	62.299	Continuing	Continuing
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>48.611</b>	<b>48.773</b>	<b>39.099</b>	<b>34.032</b>	<b>29.245</b>	<b>63.277</b>	<b>32.742</b>	<b>46.073</b>	<b>47.389</b>	<b>62.299</b>	<b>Continuing</b>	<b>Continuing</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	1.063	0.768	-	-	-	-	-	-	-	-	1.831
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE) (S7039): DECKPLATE is the next generation of Naval Aviation Logistics Data Analysis (NALDA) and will interface with Navy Enterprise Resource Planning (ERP) as the Naval Aviation Business Warehouse. It provides the technological improvements and process streamlining required to enable a cost wise transition from the NALDA program to the capabilities required in Joint Vision 2020 and the Naval Transformation Road Map. DECKPLATE is a Commercial Off the Shelf (COTS) intensive system under which numerous stovepipe legacy systems will migrate to create an integrated data environment through the use of Data Warehouse tools and concepts in support of Naval aviation logistics needs. This is being accomplished by upgrading current Naval Aviation logistics reporting mechanisms through the procurement and installation of a fully-licensed, warranted, secure, standardized, COTS, user-friendly, web-based relational database environment. Funding is required to procure the necessary hardware, networking, systems, applications software, infrastructure, and associated engineering and installation support.

Naval Aviation Logistics Command Management Information System/NAVAIR Fleet System Array (NALCOMIS/NFSA) (S7041): Funding supports procurement of HW/SW for technical refresh for both shipboard and afloat units. As Optimized Organizational Maintenance Activity (OOMA) and Optimized Intermediate Maintenance Activity (OIMA) approach full implementation, NALCOMIS (also identified as Naval Air Systems Command Fleet Systems Array (NFSA)) is responsible for implementation of Mid Tier Servers at 75+ sites both shipboard and shore based. These Mid Tier Servers replicate data from the Organizational and Intermediate level maintenance activities to the NALDA Upline processing center to provide near-real time data to decision makers at all levels. The Mid Tier also allows data to be pushed from Headquarters activities to the fleet to support maintenance activities.

Joint Technical Data Integration (JTDI) (S7042): Funding supports procurement of JTDI for installation on all Carrier (CV) and Amphibious Assault (L) class ships and up to 104 Navy/Marine Corps aviation activities. JTDI is a digital technical data access, delivery and local O&I level library management toolset and telemaintenance collaboration process enabler. It improves accuracy and timeliness of technical manual and other technical data delivery and minimizes the Fleet's library management burden. JTDI reduces maintenance manhours with savings Return on Investment (ROI) of 2.5:1 and savings/avoidance ROI of 9.5:1. It facilitates the transition of the Joint Distance Support and Response (JDSR) Advanced Concept Technology Demonstration (ACTD) for telemaintenance and provides for process efficiencies to support ongoing Aviation Fleet Technical Representative reductions.

The Marine Aviation Logistics Enterprise Information Technology (MAL-EIT) (S7046):

The MAL-EIT program is one of four programs contained within the Marine Aviation Logistics Support Program (MALSP) modernization program known as MALSP II. Legacy MALSP is nearly 25 years old and grossly inadequate in IT capability to meet the informational, planning, and C2 needs of a dynamic, geographically distributed nodal Aviation Logistics (AVLOG) system. MAL-EIT is an Abbreviated Acquisition Program (AAP) that will develop and deliver the required IT capability necessary to eliminate the IT related gaps existing in the legacy MALSP. MAL-EIT is a family of IT solutions to be developed and delivered in three increments; the first of which is the Expeditionary Pack-Up Kit (EPUK). EPUK provides Expeditionary Supply Operations such as Business Administration, Inventory and Customer Service Operations.

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B	<b>Program Elements for Code B Items:</b> N/A	<b>Other Related Program Elements:</b> N/A
<b>Line Item MDAP/MAIS Code:</b> N/A		
<p>Funding is required to procure the hardware, hand-held peripherals, satellite communication units, and associated engineering and hardware support necessary to facilitate the planning and execution of geographically distributed, expeditionary AVLOG chains in support of deployed USMC Air Combat Element (ACE) operations.</p> <p>Automated Data Capture System (ADCS) (S7047): ADCS is a user friendly, interactive mobile computing system currently in use at depot-level Fleet Readiness Centers to document and analyze aircraft discrepancies discovered during scheduled maintenance events. Inspectors use menu driven checklists plus digital aircraft and engine drawings during inspection and evaluation to create immediate discrepancy records and produce real time reports that fulfill customer and specification requirements. Requested funding will provide hardware and software for a lead-the-Fleet effort that will enable the organizational maintenance level to utilize ADCS to better document vital corrosion and wiring related discrepancy information. Once captured, this information will be analyzed by organizational level maintenance department personnel and depot level engineers to develop targeted mitigation strategies aimed at reducing or removing corrosion in identified areas. The results of the analysis made possible by using ADCS will greatly improve our understanding of where and how corrosion is affecting our aircraft, resulting in the formulation of statistically targeted area identification and sound attack strategies.</p> <p>Condition Based Maintenance Plus (CBM+) (S7048): The CBM+ solution is an initiative which provides Naval Aviation Enterprise with common enabling capabilities which deliver timely data-driven decisional information to optimize aircraft availability and materiel readiness by incorporating health and usage leading indicators into the failure mode mitigation process, enabling the Warfighter to more efficiently meet mission requirements through automated analysis and decision making processes. The CBM+ Initiative increases readiness by streamlining maintenance processes, provide the sustainment base with timely, actionable logistics data not previously available, and enable engineers and acquisition professionals to support system improvements based on CBM+ acquired data results. CBM+ provides the enabling solutions needed to extend the life of current and new acquisition aircraft, realizing savings from reductions in field (organizational and intermediate) maintenance actions, reduced functional check flight hours, mishap mitigation, and reduced parts usage.</p> <p>[P40AMOD / ALIS - Program Support]: Autonomic Logistics Information System (ALIS) Ship Integration - CVN, LHD, LHA: ALIS controls all aspects of F-35 mission planning, maintenance, logistics, and supply functions. Funding for ALIS Ship Integration efforts (Programmatic Support, Engineering Support Services, Material, and Installation efforts) will enable shipboard (CVN, LHD, LHA) modification, classified/unclassified network integration, the installation of ALIS-related shipboard equipment, ALIS security accreditation, and verification of ALIS operation and functionality to include the integration of ALIS with shipboard Command, Control, Communications and Computers &amp; Intelligence (C4I) Networks and the Prognostic Health Management (PHM) downlink. At the completion of each installation, the respective ship's ALIS will enable the F-35 system to provide, at the appropriate security levels via Navy Local Area Networks (LANs)/Wide Area Networks (WANs), the ability to transfer time-sensitive data for logistics support, mission planning, mission execution, and mission debriefing.</p> <p>[P5 / CSEL - SY060]: COMBAT SURVIVOR EVADER LOCATOR - SY060 (Baseline) CSEL has been designated as an ACAT III Joint Service Program with the USAF as lead service. The CSEL Radio system provides U.S. combat forces with secure, encrypted, low probability of exploitation, two-way, over the horizon, near real time databurst communications with integral precise geopositioning; and non-secure, unencrypted line-of-sight voice and beacon capability to support survival, evasion, and personnel recovery operations. The user segment of the CSEL system is composed of a battery operated Hand Held Radio (HHR) (AN/PRQ-7), a Radio Set Adapter (J-6431/PRQ-7), a Global Positioning System (GPS) antenna and coupler, and a laptop Central Processing Unit with software for loading the HHR CSEL Planning Computer. Fielding of CSEL radios will provide 100% coverage of radios to Aviation personnel that currently lack military GPS enabled radios today.</p> <p>[P5 / LEP- SY080]: LASER EYE PROTECTION (LEP) - SY080 (Baseline) The LEP program is a family of eye protection solutions that will provide Fixed Wing Ejection, Fixed Wing Non-Ejection and Rotary Wing/Tilt Rotor pilots and aircrew with multiple wavelength fixed threat and hazard protection during day and night unaided and Night Vision Goggle aided missions. LEP will consist of a suite of products to include spectacles, goggles, and visors. The LEP (visor, spectacle or goggle format) is being developed for compatibility with all required USN/USMC Aviation Life Support Equipment as well as cockpit displays, night vision, and fire control systems.</p> <p>[P5 / JHMCS Night Vision - SY215]: JOINT HELMET MOUNTED CUEING SYSTEM NIGHT VISION (JHMCS) - SY215 (Baseline) This system provides aircraft equipped with the JHMCS the ability to cue and display weapons and sensors at night using a Night Vision Cueing and Display device that integrates the JHMCS cueing and display symbology. The system is compatible with the current JHMCS helmet and will use the power and data provided by the JHMCS Universal Connector on the helmet. The system includes a high resolution image intensifier assembly and a camera to record the pilot's visual scene and display. The system is fully adjustable by the operator and is detachable from the helmet.</p>		

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Exhibit P-40, Budget Line Item Justification: FY 2018 Navy		Date: May 2017
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment		P-1 Line Item Number / Title: 4268 / Aviation Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A		
<p>[P5 / FDC - SY505]: FLIGHT DECK CRANIAL AND HEARING PROTECTION - SY505 (Baseline) The Flight Deck Cranial program has been divided into three increments by the Milestone Decision Authority. Increment 1 is the Flight Deck Double Hearing Protection (DHP) program and is providing improved hearing protection for aircrew, maintainers, and flight deck personnel, which can be integrated into current legacy helmet and cranial assemblies. Communications versions interface with existing flight deck communications system and F/A-18 Inter-aircraft Communication System. Increment 1 Milestone C (MS C) was successfully completed on 27 April 2011. Increment 2 is the Triple Hearing Protection (THP) program and will provide hearing protection and speech intelligibility for aircrew, maintainers and flight deck personnel in the most extreme noise environments. Communications versions will interface with the shipboard Sound-Powered Phone, existing flight deck communications systems and multiple aircraft communications systems. Increment 3 will provide lightweight head protection devices/helmets with advancements in head impact protection, and Night Vision Device, Chemical Biological and Radiological protective equipment, and eye protection compatibility. These products will greatly improve the level of head and hearing protection available to aircrew, maintainers, and flight deck personnel.</p>		
<p>[P5 / EKB - SY450]: ELECTRONIC KNEE BOARD (EKB) - SY450 (Baseline) The EKB is an aircrew mounted tablet device system. Currently, printed Gridded Reference Graphics (GRG) charts are used to provide aircrew with required information to complete their missions. Evolving flight operations show the need for aircrew to be re-tasked to any part of a large area of operations resulting in the need to carry many more GRG charts in the aircraft. Physical space constraints in the cockpit for printed GRG's and insufficient aircraft memory to store electronic GRG files are adversely affecting the Fleets' ability to perform their mission. The EKB provides a digital means to store and display all required GRG information, which will increase mission flexibility, situational awareness, and overall mission effectiveness. In addition, the EKB will also store and display other information that is currently printed, to include, but not limited to, NATOPS procedures, flight information publications and related mission planning products.</p>		
<p>[P5 / EVA - SY217]: ENHANCED VISUAL ACUITY (EVA) - SY217 (Baseline) EVA provides a digital night vision capability to address critical capability gaps in low and no light illumination levels (night vision) and higher visibility in a degraded visual environment. The digital architecture of the system provides the ability to field capabilities incrementally. Increment 1 will include capabilities to address the low and no light illumination issues. The increment 1 capability will also provide a sharper image at all light levels by reducing scintillation and will reduce halo/blooming when operating in urban environments. Increment 2 will build on the Increment 1 performance by adding capability to address the need for higher visibility in degraded visual environments, digital interoperability and future sensor integration.</p>		
<p>[P5 / ASIP - SY126]: AIRCREW SYSTEMS IMPROVEMENT PROGRAM (ASIP)- SY126 (Baseline) The Aircrew Systems Improvement Program (ASIP) targets initiatives to improve the performance, safety, reliability and mission endurance of Aviation Aircrew and Maintainer Life Support Systems in support of fleet readiness and mission objectives. The ASIP will correct operational discrepancies or major obsolescence issues in ALSS discovered during testing and evaluations, sustainment activities, engineering analysis, standard depot level evaluations, and during fleet operations. The ASIP provides the resources to correct such issues via Engineering Change Proposals (ECPs), minor Non-Recurring Engineering (NRE) efforts that can be rapidly qualified, leading to production efforts or simple qualification and production of Commercial Off-the-Shelf (COTS), Non-Developmental Items (NDI) or Personnel Gear qualified through other Services. Modifications include, but are not limited to, Escape and Crashworthy Systems such as ejection seat, Survival kit items, Survival Signaling Devices, Personnel Seats, and aircraft emergency escape parachutes; Aviation Life Support Systems such as hearing protection, laser eye protection, cranial communication systems, anti-exposure suits and safety boots; Night Vision Systems such as helmet-mounted displays and Night Vision Goggles and Image Intensifier Tubes; Chemical Biological Defense items such as CBR decontamination, CBR Detection and CBR Clothing and skin protection, masks, filters and hoods; Hypoxia Mitigation efforts to include Oxygen systems and devices such as Oxygen masks and filters and Oxygen generation systems; Mission Endurance efforts such as reduction of bulk, moisture wicking materials, improved support devices and cushioning, hydration technology and bodily waste collection and storage.</p>		
<p>[P5 - 2 / S6001 Portable Electronic Maintenance Aids (PEMAs)]: Portable Electronic Maintenance Aids (PEMAs) are Aviation Support Equipment end items used by fleet technicians to assist in performing maintenance and diagnostics of aircraft. Funding is required to procure the necessary hardware, software applications, initial stand up, and production support. PEMAs are a portable display device used in the Automated Maintenance Environment (AME) to read digital maintenance publications and Integrated Electronic Technical Manuals (IETMs). PEMAs with IETMs applications interpret aircraft Binary Digit (BIT) Data to diagnose the aircraft systems and direct maintenance actions.</p>		

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<b>Exhibit P-40, Budget Line Item Justification:</b> FY 2018 Navy								<b>Date:</b> May 2017		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3: Aircraft Support Equipment						<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment				
<b>ID Code</b> (A=Service Ready, B=Not Service Ready): B			<b>Program Elements for Code B Items:</b> N/A			<b>Other Related Program Elements:</b> N/A				
<b>Line Item MDAP/MAIS Code:</b> N/A										
Exhibits Schedule					Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 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	Other Aviation Support Equipment				- / 3.841	- / 7.532	- / 7.229	- / 7.043	- / -	- / 7.043
P-40a	ALIS SHIP INSTALLATION				- / 5.516	- / 3.893	- / 2.061	- / 3.458	- / 0.000	- / 3.458
P-5	1 / Aviation Life Support	P-5a, P-21			- / 28.602	- / 29.586	- / 22.528	- / 16.716	- / 23.151	- / 39.867
P-5	2 / Portable Electronic Maintenance Aids	P-5a, P-21			- / 10.652	- / 7.762	- / 7.280	- / 6.815	- / 6.094	- / 12.909
<b>P-40</b>	<b>Total Gross/Weapon System Cost</b>				<b>- / 48.611</b>	<b>- / 48.773</b>	<b>- / 39.099</b>	<b>- / 34.032</b>	<b>- / 29.245</b>	<b>- / 63.277</b>
<p>*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications. Title represents the P-40a Title when only the P-40a Summary/Total is shown.</p> <p>Note: Totals in this Exhibit P-40 set may not be exact or sum exactly due to rounding.</p>										
<p><b>Justification:</b> The FY2018 Budget Request includes funding for the following:</p> <p>Other Aviation Support Equipment - the procurement of hardware and associated support costs for JTDI (S7042), MAL-EIT/EPUK (S7046), and CBM+ (S7048).</p> <p>Other Aviation Support Equipment - Naval Aviation Logistics Command Management Information System/Naval Air Systems Command Fleet System Array (NALCOMIS/NFSA)(S7041) consists of the purchase of multiple components, which includes servers, peripheral hardware and software rack mounted into one server suite. Funds are required to manage obsolescence and comply with CYBER WARFARE/XP Migration and fleet data replication and analysis processes used to monitor safety and readiness of the Fleet as well as the ability to comply with mandatory Information Security (IA) mandates, which would lead to IT system shutdown without adherence.</p> <p>Naval Aviation Logistics Data Analysis Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE)(S7039)consists of the purchase of multiple components, which includes servers, peripheral hardware and software rack mounted into one server suite. Funds are required to manage obsolescence and comply with CYBER WARFARE/XP Migration and fleet data replication and analysis processes used to monitor safety and readiness of the Fleet as well as the ability to comply with mandatory Information Security (IA) mandates, which would lead to IT system shutdown without adherence.</p> <p>Aviation Life Support - the procurement of hardware and associated support costs for 35 JHMCS Night Vision Cueing and Display devices and 32 Combat Survivor Evader Locator programming computers under the Aircrew Systems Improvement Program (ASIP) cost code. ASIP is a New Start program in FY18.</p> <p>Portable Electronic Maintenance Aids (PEMA) - the procurement of hardware and associated support costs for 1,460 PEMA units in FY2018.</p> <p>Autonomic Logistics Info Systems (ALIS) - supports Design Support Activities (DSA) to include material purchases for the installation of two (2) ALIS in FY2018.</p> <p>OCO: Portable Electronic Maintenance Aids (PEMA) - FY18 Overseas Contingency Operations (OCO) procurement of hardware for 1741 PEMA units in support of Operation INHERENT RESOLVE - In Theater.</p> <p>Aviation Life Support - FY18 Overseas Contingency Operations (OCO) procurement of hardware for 157 JHMCS Night Vision units in support of Operation Inherent Resolve (OIR).</p>										



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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4268 / Aviation Support Equipment							Aggregated Items Title: Other Aviation Support Equipment <sup>(1)</sup>							
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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) Naval Aviation Logistics Data Analysis Decision Knowledge Programming for Logistics Analy																					
1.1) S7039 - Aviation Data Warehouse Environment <sup>(2)</sup>		A		410,000.00	1	0.410	2,625K	1	2.625	1,405K	1	1.405	1,485K	1	1.485	-	-	-	1,485K	1	1.485
Subtotal: 1) Naval Aviation Logistics Data Analysis Decision Knowledge Programming for Logistics Analy				-	-	0.410	-	-	2.625	-	-	1.405	-	-	1.485	-	-	-	-	-	1.485
2) Naval Aviation Logistics Command Management Information System/Naval Air Systems Command F																					
2.1) S7041 - NFSA HW/SW <sup>(3)</sup>		A		853,000.00	1	0.853	2,213K	1	2.213	2,093K	1	2.093	2,215K	1	2.215	-	-	-	2,215K	1	2.215
Subtotal: 2) Naval Aviation Logistics Command Management Information System/Naval Air Systems Command F				-	-	0.853	-	-	2.213	-	-	2.093	-	-	2.215	-	-	-	-	-	2.215
3) Joint Technical Data Integration (JTDI)																					
3.1) S7042 - JTDI HW/SW <sup>(4)</sup>		A		844,000.00	1	0.844	510,000.00	1	0.510	562,653.00	1	0.563	1,956K	1	1.956	-	-	-	1,956K	1	1.956
Subtotal: 3) Joint Technical Data Integration (JTDI)				-	-	0.844	-	-	0.510	-	-	0.563	-	-	1.956	-	-	-	-	-	1.956
4) Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)/Expeditionary Pack U																					
4.1) S7046 - EPUK HW/SW <sup>(5)</sup>		B		374,000.00	1	0.374	192,767.00	1	0.193	1,914K	1	1.914	179,449.00	1	0.179	-	-	-	179,449.00	1	0.179
Subtotal: 4) Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)/Expeditionary Pack U				-	-	0.374	-	-	0.193	-	-	1.914	-	-	0.179	-	-	-	-	-	0.179
5) Automated Data Capture System (ADCS)																					
5.1) S7047 - ADCS HW/SW		B		207,000.00	1	0.207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 5) Automated Data Capture System (ADCS)				-	-	0.207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6) Condition Based Maintenance Plus (CBM+)																					
6.1) S7048 - CBM+ HW/SW <sup>(6)</sup>		A		-	-	-	168,000.00	1	0.168	154,437.00	1	0.154	156,455.00	1	0.156	-	-	-	156,455.00	1	0.156
Subtotal: 6) Condition Based Maintenance Plus (CBM+)				-	-	0.000	-	-	0.168	-	-	0.154	-	-	0.156	-	-	-	-	-	0.156
7) Production Engineering Support (AIR6.8)																					
7.1) S7833 - Marine Aviation Logistics Enterprise Information Technology		A		-	-	-	-	-	0.020	-	-	0.020	-	-	0.021	-	-	-	-	-	0.021

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4268 / Aviation Support Equipment								Aggregated Items Title: Other Aviation Support Equipment <sup>(1)</sup>					
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
7.2) S7833 - Aviation Data Warehouse Environment	A		-	-	0.326	-	-	0.700	-	-	0.389	-	-	0.385	-	-	-	-	-	0.385
7.3) S7833 - Naval Air Systems Command Fleet System Arrays	A		-	-	0.354	-	-	0.700	-	-	0.426	-	-	0.425	-	-	-	-	-	0.425
7.4) S7833 - Joint Technical Data Integration	A		-	-	0.349	-	-	0.349	-	-	0.221	-	-	0.178	-	-	-	-	-	0.178
7.5) S7833 - Automated Data Capture System	A		-	-	0.124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6) S7833 - Condition Based Maintenance Plus	A		-	-	-	-	-	0.054	-	-	0.044	-	-	0.043	-	-	-	-	-	0.043
Subtotal: 7) Production Engineering Support (AIR6.8)			-	-	1.153	-	-	1.823	-	-	1.100	-	-	1.052	-	-	-	-	-	1.052
Total			-	-	3.841	-	-	7.532	-	-	7.229	-	-	7.043	-	-	-	-	-	7.043

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

**Footnotes:**

- (1) Program provides for the acquisition, upgrade, and production support of aviation life support systems required for the personal safety and protection of aircrew against the hazards encountered in the aircraft operating environment and for safe recovery of downed aircrew. Note: Elements of Cost that are not currently funded in the FYDP are no longer included in the "Prior Year" column.
- (2) Naval Aviation Logistics Data Analysis Decision Knowledge Programming for Logistics Analysis and Technical Evaluation (DECKPLATE)(S7039) - The unit cost reflects the total of all suites being procured in each fiscal year.
- (3) Naval Aviation Logistics Command Management Information System/Naval Air Systems Command Fleet System Array (NALCOMIS/NFSA) (S7041): The unit cost reflects the total of all suites being procured in each fiscal year.
- (4) S7042 Joint Technical Data Integration.
- (5) Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)/Expeditionary Pack Up Kits (EPUK) (S7046).
- (6) S7048 Condition Based Maintenance - Funding for Condition Based Maintenance (CBM+) was previously executed under DECKPLATE.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: FY 2018 Navy															Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4268 / Aviation Support Equipment							Aggregated Items Title: ALIS SHIP INSTALLATION							
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)	
B Kits/Recurring																					
Installation Material -- Procurement <sup>(7)</sup>		A		40,000.00	4	0.160	40,000.00	2	0.080	-	-	-	40,000.00	2	0.080	-	-	-	40,000.00	2	0.080
Installation Material -- Installation		A		-	-	3.977	-	-	1.924	-	-	0.329	-	-	2.024	-	-	-	-	-	2.024
Subtotal: B Kits/Recurring				-	-	4.137	-	-	2.004	-	-	0.329	-	-	2.104	-	-	-	-	-	2.104
Support Cost																					
ALIS - Program Support <sup>(8)</sup>		A		-	-	0.830	-	-	0.865	-	-	0.787	-	-	0.709	-	-	-	-	-	0.709
ALIS - Production Engineering Support <sup>(9)</sup>		A		-	-	0.549	-	-	1.024	-	-	0.945	-	-	0.645	-	-	-	-	-	0.645
Subtotal: Support Cost				-	-	1.379	-	-	1.889	-	-	1.732	-	-	1.354	-	-	-	-	-	1.354
Total				-	-	5.516	-	-	3.893	-	-	2.061	-	-	3.458	-	-	0.000	-	-	3.458
Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.																					
Remarks:																					
Models of Systems Affected: CVN, LHD, & LHA																					
Type Modification: Add Capability																					
Autonomic Logistics Information System (ALIS) Ship Integration - CVN, LHD, LHA: ALIS controls all aspects of F-35 mission planning, maintenance, logistics, and supply functions. Funding for ALIS Ship Integration efforts (Programmatic Support, Engineering Support Services, Material, and Installation efforts) will enable shipboard (CVN, LHD, LHA) modification, classified/unclassified network integration, the installation of ALIS-related shipboard equipment, ALIS security accreditation, and verification of ALIS operation and functionality to include the integration of ALIS with shipboard Command, Control, Communications and Computers & Intelligence (C4I) Networks and the Prognostic Health Management (PHM) downlink. At the completion of each installation, the respective ship's ALIS will enable the F-35 system to provide, at the appropriate security levels via Navy Local Area Networks (LANs)/Wide Area Networks (WANs), the ability to transfer time-sensitive data for logistics support, mission planning, mission execution, and mission debriefing.																					
Footnotes:																					
<sup>(7)</sup> FY 2018 requested funding supports Design Support Activities (DSA) to include material purchases for the installation of two (2) ALIS in FY2019.																					
<sup>(8)</sup> FY 2018 requested funding supports Design Support Activities (DSA) to include Alteration Installation Team support for the installation of two (2) ALIS in FY 2019.																					
<sup>(9)</sup> FY 2018 requested funding supports Design Support Activities (DSA) to include Ship Installation Drawings and Ship check in support of installation of two (2) ALIS in FY 2019.																					

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Exhibit P-5, Cost Analysis: FY 2018 Navy													Date: May 2017								
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3							P-1 Line Item Number / Title: 4268 / Aviation Support Equipment						Item Number / Title [DODIC]: 1 / Aviation Life Support								
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:											
Resource Summary				Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
Procurement Quantity <i>(Units in Each)</i>				-			-			-			-			-			-		
Gross/Weapon System Cost <i>(\$ in Millions)</i>				28.602			29.586			22.528			16.716			23.151			39.867		
Less PY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Net Procurement (P-1) <i>(\$ in Millions)</i>				28.602			29.586			22.528			16.716			23.151			39.867		
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Total Obligation Authority <i>(\$ in Millions)</i>				28.602			29.586			22.528			16.716			23.151			39.867		
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																					
Initial Spares <i>(\$ in Millions)</i>				-			-			-			-			-			-		
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																					
Cost Elements		Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total				
		Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)		
Hardware - Survival Electronics Cost																					
Recurring Cost																					
1.1.1) CSEL - SY060 <sup>(†)</sup>		8,244.90	49	0.404	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Recurring Cost		-	-	0.404	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - Survival Electronics Cost		-	-	0.404	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
Hardware - Helmets, Hearing and Display Cost																					
Non Recurring Cost																					
2.1.1) JHMCS Night Vision NRE- SY215		-	-	0.000	-	-	1.050	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		
2.1.2) FDC NRE - SY505		-	-	0.000	-	-	0.000	-	-	3.700	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Non Recurring Cost		-	-	0.000	-	-	1.050	-	-	3.700	-	-	0.000	-	-	0.000	-	-	0.000		
Subtotal: Hardware - Helmets, Hearing and Display Cost		-	-	0.000	-	-	1.050	-	-	3.700	-	-	0.000	-	-	0.000	-	-	0.000		
Hardware - Helmets, Hearing and Display Cost																					
Recurring Cost																					
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup> (10)		166,880.00	100	16.688	196,740.00	70	13.772	300,250.00	28	8.407	147,458.60	72	10.617	147,458.60	157	23.151	147,458.60	229	33.768		
3.1.3) JHMCS Night Vision Pec Spt Equip - SY215 <sup>(†)</sup>		32,533.33	30	0.976	30,466.67	30	0.914	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000		

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Exhibit P-5, Cost Analysis: FY 2018 Navy												Date: May 2017						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4268 / Aviation Support Equipment						Item Number / Title [DODIC]: 1 / Aviation Life Support						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 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)
3.1.5) EKB - SY450 <sup>(†)</sup>	-	-	0.000	1,127.48	2,675	3.016	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	17.664	-	-	17.702	-	-	8.407	-	-	10.617	-	-	23.151	-	-	33.768
Subtotal: Hardware - Helmets, Hearing and Display Cost	-	-	17.664	-	-	17.702	-	-	8.407	-	-	10.617	-	-	23.151	-	-	33.768
Hardware - Life Support Systems Cost																		
Recurring Cost																		
4.1.1) ASIP - SY126 <sup>(†)</sup> (11)	-	-	0.000	-	-	0.000	-	-	0.000	5,718.75	32	0.183	-	-	0.000	5,718.75	32	0.183
Subtotal: Recurring Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.183	-	-	0.000	-	-	0.183
Subtotal: Hardware - Life Support Systems Cost	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.183	-	-	0.000	-	-	0.183
Support - Production Support Cost																		
5.1) Survival Electronics - SY830	-	-	0.258	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
5.2) Helmets, Hearing and Displays - SY830	-	-	10.276	-	-	10.834	-	-	10.421	-	-	5.816	-	-	0.000	-	-	5.816
5.3) Life Support Systems - SY830	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.100	-	-	0.000	-	-	0.100
Subtotal: Support - Production Support Cost	-	-	10.534	-	-	10.834	-	-	10.421	-	-	5.916	-	-	0.000	-	-	5.916
Gross/Weapon System Cost	-	-	28.602	-	-	29.586	-	-	22.528	-	-	16.716	-	-	23.151	-	-	39.867

(†) indicates the presence of a P-5a

Footnotes:

(10) SY215 JHMCS: Quantity and unit prices in FY18-FYDP adjusted to reflect revised negotiated contract pricing and Life Cycle Cost Estimate. Night Vision Units are contracted via a Sole Source contract with the vendor. Unit costs and quantities vary due to quantity based step-ladder pricing which results in Economy of Scale unit cost savings for higher quantities procured and increased unit costs for lower quantities procured. Additional savings from Non-Recurring used to procure 28 additional units in FY16. FY18 Baseline unit cost decreased due to procuring OCO units and Baseline units on a single contract action.

(11) SY126 ASIP: Quantities and unit costs vary due to mix of ASIP items being procured.

(†) indicates the presence of a P-5a

**Footnotes:**

(10) SY215 JHMCS: Quantity and unit prices in FY18-FYDP adjusted to reflect revised negotiated contract pricing and Life Cycle Cost Estimate. Night Vision Units are contracted via a Sole Source contract with the vendor. Unit costs and quantities vary due to quantity based step-ladder pricing which results in Economy of Scale unit cost savings for higher quantities procured and increased unit costs for lower quantities procured. Additional savings from Non-Recurring used to procure 28 additional units in FY16. FY18 Baseline unit cost decreased due to procuring OCO units and Baseline units on a single contract action.

(11) SY126 ASIP: Quantities and unit costs vary due to mix of ASIP items being procured.

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Exhibit P-5a, Procurement History and Planning: FY 2018 Navy								Date: May 2017				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3				P-1 Line Item Number / Title: 4268 / Aviation Support Equipment				Item Number / Title [DODIC]: 1 / Aviation Life Support				
Cost Elements	O C O	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
1.1.1) CSEL - SY060		2015	Boeing / Huntington Beach, CA	SS / FFP	NAVAIR	Jul 2015	Nov 2015	49	8,250.00	Y		Oct 2011
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2015	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2016	Aug 2017	100	166,880.00	Y		Dec 2014
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2016 <sup>(13)</sup>	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2016	Aug 2017	70	196,740.00	Y		Dec 2014
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2017	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2017	Aug 2018	28	300,250.00	Y		Dec 2014
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2018	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2018	Aug 2019	72	147,458.60	Y		Oct 2016
3.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>	✓	2018 <sup>(14)</sup>	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2018	Aug 2019	157	147,458.60	Y		
3.1.3) JHMCS Night Vision Pec Spt Equip - SY215		2015	Rockwell Collins - ESA Vision Systems / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2016	Jul 2016	30	32,533.33	Y		Dec 2014
3.1.3) JHMCS Night Vision Pec Spt Equip - SY215		2016	Rockwell Collins - ESA Vision Systems / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2017	Jul 2017	30	30,466.67	Y		Dec 2014
3.1.5) EKB - SY450		2016	New Cingular Wireless, Inc. / Atlanta, Georgia	C / FFP	NAVSUP	May 2016	Jul 2016	2,675	1,127.48	Y		Oct 2015
4.1.1) ASIP - SY126		2018 <sup>(15)</sup>	VARIOUS / VARIOUS	Various	VARIOUS	Dec 2017	Feb 2018	32	5,718.75	Y		

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

**Footnotes:**  
<sup>(12)</sup> Production Lead Time increased from 12 months to 17 months due to the Image Intensifier Tube Power Supply obsolescence issue as well as longer lead time for other required materials.  
<sup>(13)</sup> Award dates for FRP 1 quantity 20 awarded in March 2016 and FRP 2 quantity 50 awarded in March 2017.  
<sup>(14)</sup> FY18 Overseas Contingency Operations (OCO) procurement of hardware for 157 JHMCS Night Vision units in support of Operation Inherent Resolve (OIR).  
<sup>(15)</sup> Contract vehicles and Vendors vary depending on mix of ASIP items being procured.

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017													
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3										P-1 Line Item Number / Title: 4268 / Aviation Support Equipment										Item Number / Title [DODIC]: 1 / Aviation Life Support													
Cost Elements <i>(Units in Each)</i>							Fiscal Year 2015										Fiscal Year 2016													BALANCE			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 4	BAL DUE AS OF 1 OCT	Calendar Year 2015										Calendar Year 2016																
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P		
3.1.2) JHMCS Night Vision - SY215 <sup>(10)</sup>																																	
	1	2015	NAVY	100	0	100														A -	-	-	-	-	-	-	-						100
	1	2016	NAVY	70 <sup>(16)</sup>	0	70														A -	-	-	-	-	-	-						70	
	1	2017	NAVY	28 <sup>(17)</sup>	0	28																											28
	1	2018	NAVY	72	0	72																											72
✓	1	2018	NAVY	157	0	157																											157
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017												
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3										P-1 Line Item Number / Title: 4268 / Aviation Support Equipment										Item Number / Title [DODIC]: 1 / Aviation Life Support												
Cost Elements <i>(Units in Each)</i>							Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 6	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
3.1.2) JHMCS Night Vision - SY215 <sup>(10)</sup>																																
	1	2015	NAVY	100	0	100	-	-	-	-	-	-	-	-	-	9	9	9	9	8	8	8	8	8	8	8	8	8			0	
	1	2016	NAVY	70 <sup>(16)</sup>	0	70	-	-	-	-	-	-	-	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	5	5	40	
	1	2017	NAVY	28 <sup>(17)</sup>	0	28						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	22		
	1	2018	NAVY	72	0	72																										
✓	1	2018	NAVY	157	0	157																										
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		



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Exhibit P-21, Production Schedule: FY 2018 Navy																			Date: May 2017													
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3									P-1 Line Item Number / Title: 4268 / Aviation Support Equipment										Item Number / Title [DODIC]: 1 / Aviation Life Support													
Cost Elements (Units in Each)							Fiscal Year 2019										Fiscal Year 2020												B A L A N C E			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT				Calendar Year 2019										Calendar Year 2020												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L		A U G	S E P	
3.1.2) JHMCS Night Vision - SY215 <sup>(10)</sup>																																
	1	2015	NAVY	100	100	0																									0	
	1	2016	NAVY	70 <sup>(16)</sup>	30	40	5	5	4	4	4	4	4	4	3	3																0
	1	2017	NAVY	28 <sup>(17)</sup>	6	22	3	3	2	2	2	2	2	2	2																0	
	1	2018	NAVY	72	0	72	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	6	6	6	6			0	
✓	1	2018	NAVY	157	0	157	-	-	-	-	-	-	-	-	-	14	14	13	13	13	13	13	13	13	13	13	13	12			0	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: FY 2018 Navy									Date: May 2017			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3					P-1 Line Item Number / Title: 4268 / Aviation Support Equipment				Item Number / Title [DODIC]: 1 / Aviation Life Support			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					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	Rockwell Collins - ESA Vision Systems <sup>(12)</sup> - Dallas Ft. Worth, Texas	3	120	240	0	0	0	0	0	6	17	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).

**Footnotes:**

<sup>(12)</sup> Production Lead Time increased from 12 months to 17 months due to the Image Intensifier Tube Power Supply obsolescence issue as well as longer lead time for other required materials.

<sup>(16)</sup> FY17 Deliveries are from FRP1 and FY18 Deliveries are from FRP 2 contract awards.

<sup>(17)</sup> FY17 Deliveries are from FRP 1 and FRP 2 contract awards.

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Exhibit P-5, Cost Analysis: FY 2018 Navy											Date: May 2017							
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3						P-1 Line Item Number / Title: 4268 / Aviation Support Equipment						Item Number / Title [DODIC]: 2 / Portable Electronic Maintenance Aids						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Resource Summary				Prior Years		FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total				
Procurement Quantity <i>(Units in Each)</i>				-		-		-		-		-		-				
Gross/Weapon System Cost <i>(\$ in Millions)</i>				10.652		7.762		7.280		6.815		6.094		12.909				
Less PY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Net Procurement (P-1) <i>(\$ in Millions)</i>				10.652		7.762		7.280		6.815		6.094		12.909				
Plus CY Advance Procurement <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Total Obligation Authority <i>(\$ in Millions)</i>				10.652		7.762		7.280		6.815		6.094		12.909				
(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)																		
Initial Spares <i>(\$ in Millions)</i>				-		-		-		-		-		-				
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>				-		-		-		-		-		-				
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 2016			FY 2017			FY 2018 Base			FY 2018 OCO			FY 2018 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Hardware PEMA Cost																		
Recurring Cost																		
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(f)</sup> <sup>(18)</sup>	3,514.55	2,062	7.247	3,585.47	1,720	6.167	3,835.96	1,449	5.558	3,500.00	1,460	5.110	3,500.29	1,741	6.094	3,500.16	3,201	11.204
1.1.2) S6002 CH/MH-53 PEMAs	3,416.20	531	1.814	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Recurring Cost	-	-	9.061	-	-	6.167	-	-	5.558	-	-	5.110	-	-	6.094	-	-	11.204
Subtotal: Hardware - Hardware PEMA Cost	-	-	9.061	-	-	6.167	-	-	5.558	-	-	5.110	-	-	6.094	-	-	11.204
Support - Production Cost																		
2.1) S6820 Portable Electronic Maintenance Aids (PEMAs) Support	-	-	1.456	-	-	1.595	-	-	1.722	-	-	1.705	-	-	0.000	-	-	1.705
2.2) S6830 CH/MH-53 PEMAs Support	-	-	0.135	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000
Subtotal: Support - Production Cost	-	-	1.591	-	-	1.595	-	-	1.722	-	-	1.705	-	-	0.000	-	-	1.705
Gross/Weapon System Cost	-	-	10.652	-	-	7.762	-	-	7.280	-	-	6.815	-	-	6.094	-	-	12.909
Remarks: [Hardware] Quantities of PEMAs are derived from actual current inventory, as reported by the fleet in the mandated asset tracking system Support Equipment Management System (SEMS). This program is a replenishment of these fielded systems on a one for one basis as required.																		

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<b>Exhibit P-5, Cost Analysis: FY 2018 Navy</b>		<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3	<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment	<b>Item Number / Title [DODIC]:</b> 2 / Portable Electronic Maintenance Aids
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :		<b>MDAP/MAIS Code:</b>

(†) indicates the presence of a P-5a

### Footnotes:

(18) FY18 unit cost reduction a result of actual negotiated FY15/16 unit prices. FY18 Overseas Contingency Operations (OCO) procurement of hardware in support of Operation INHERENT RESOLVE - In Theater.

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<b>Exhibit P-5a, Procurement History and Planning: FY 2018 Navy</b>								<b>Date:</b> May 2017			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3				<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment				<b>Item Number / Title [DODIC]:</b> 2 / Portable Electronic Maintenance Aids			

<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>		2016	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD LKE	Dec 2015	Feb 2016	1,720	3,585.47	Y		Dec 2015
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>		2017	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD LKE	Dec 2016	Feb 2017	1,449	3,835.96	Y		Dec 2016
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>		2018	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD LKE	Dec 2017	Feb 2018	1,460	3,500.00	Y		Dec 2017
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>	✓	2018	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD	Dec 2017	Feb 2018	1,741	3,500.29	Y		Dec 2017

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

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Exhibit P-21, Production Schedule: FY 2018 Navy																				Date: May 2017													
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3										P-1 Line Item Number / Title: 4268 / Aviation Support Equipment										Item Number / Title [DODIC]: 2 / Portable Electronic Maintenance Aids													
Cost Elements <i>(Units in Each)</i>							Fiscal Year 2016												Fiscal Year 2017												B A L A N C E		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(18)</sup>																																	
Prior Years Deliveries: 2062																																	
	1	2016	NAVY	1,720	0	1,720		A -	-	135	135	135	135	135	135	135	135	163	163	163	151											0	
	1	2017	NAVY	1,449	0	1,449													A -	-	121	121	121	121	121	121	121	121	121		481		
	1	2018	NAVY	1,460	0	1,460																									1,460		
✓	1	2018	NAVY	1,741	0	1,741																									1,741		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: FY 2018 Navy																							Date: May 2017										
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3										P-1 Line Item Number / Title: 4268 / Aviation Support Equipment													Item Number / Title [DODIC]: 2 / Portable Electronic Maintenance Aids										
Cost Elements <i>(Units in Each)</i>							Fiscal Year 2018												Fiscal Year 2019												BALANCE		
OCO	MFR#	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019														
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(18)</sup>																																	
Prior Years Deliveries: 2062																																	
	1	2016	NAVY		1,720	1,720	0																										0
	1	2017	NAVY		1,449	968	481	121	121	121	118																						0
	1	2018	NAVY		1,460	0	1,460			A -	-	121	121	121	121	122	122	122	122	122	122	122	122									0	
✓	1	2018	NAVY		1,741	0	1,741			A -	-	146	145	145	145	145	145	145	145	145	145	145	145									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		

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<b>Exhibit P-21, Production Schedule:</b> FY 2018 Navy						<b>Date:</b> May 2017
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3			<b>P-1 Line Item Number / Title:</b> 4268 / Aviation Support Equipment			<b>Item Number / Title [DODIC]:</b> 2 / Portable Electronic Maintenance Aids

MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2018	1-8-5 For 2018	MAX For 2018	Initial				Reorder			
					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	Panasonic of North America - Secaucus, NJ	500	2,000	5,000	0	0	0	0	0	3	2	5

"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).