## Department of Defense Fiscal Year (FY) 2017 President's Budget Submission

February 2016



## Navy

Justification Book Volume 3 of 5

Other Procurement, Navy
BA 3

**UNCLASSIFIED** 

The estimated cost for this report for the Department of the Navy (DON) is \$4,654.

The estimated total cost for supporting the DON budget justification material is approximately \$1,834,000 for the 2016 fiscal year. This includes \$75,200 in supplies and \$1,758,800 in labor.

Navy • President's Budget Submission FY 2017 • Procurement

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## **Department of Defense Appropriations Act, 2017**

## 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, \$6,463,067,000, to remain available for obligation until September 30, 2019.



# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

(Dollars in Thousands)

Appropriation	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted
Other Procurement, Navy	6,405,148	6,484,257	12,186	6,496,443
Total Department of the Navy	6,405,148	6,484,257	12,186	6,496,443

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

14 Jan 2016

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority (Dollars in Thousands)

14 Jan 2016

Appropriation	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Other Procurement, Navy	6,338,861	124,206	6,463,067
Total Department of the Navy	6,338,861	124,206	6,463,067

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted
01. Ships Support Equipment	2,275,493	1,846,326		1,846,326
02. Communications & Electronics Equip	2,229,171	2,354,322		2,354,322
03. Aviation Support Equipment	370,526	419,225		419,225
04. Ordnance Support Equipment	693,093	852,207		852,207
05. Civil Engineering Support Equip	54,526	54,933	186	55,119
06. Supply Support Equipment	92,883	246,708		246,708
07. Personnel & Command Support Equip	386,985	403,072		415,072
08. Spares and Repair Parts	302,471	307,464		307,464
Total Other Procurement, Navy	6,405,148	6,484,257	12,186	6,496,443

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: Other Procurement, Navy

Budget Activity	FY 2017 Base	FY 2017 OCO	FY 2017 Total
01. Ships Support Equipment	1,878,390		1,878,390
02. Communications & Electronics Equip	2,122,908	12,000	2,134,908
03. Aviation Support Equipment	439,109		439,109
04. Ordnance Support Equipment	933,565	99,329	1,032,894
05. Civil Engineering Support Equip	84,345	630	84,975
06. Supply Support Equipment	316,609	25	316,634
07. Personnel & Command Support Equip	364,275	12,222	376,497
08. Spares and Repair Parts	199,660		199,660
Total Other Procurement, Navy	6,338,861	124,206	6,463,067

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

cal Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

### Budget Activity 01: Ships Support Equipment    Ship Propulsion Equipment	Line No Item Nomenclature	Ident Code	FY 2015 (Base & OCO) Quantity Cost	FY 2016  Base Enacted  Quantity Cost	FY 2016 OCO Enacted Quantity Cost	FY 2016 Total Enacted Quantity Cost	S e c
1 LM-2500 Gas Turbine A 7,822 4,881 4,881 U 2 Allison 501k Gas Turbine A 2,155 5,814 5,814 U 3 Surface Power Equipment A U 4 Hybrid Electric Drive (HED) 12,638 29,106 29,106 U Generators 5 Surface Combatant HMsE A 26,664 36,860 36,860 U Navigation Equipment A 39,298 87,481 87,481 U Periscopes 7 Sub Periscopes a Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A 324,219 421,195 U 10 Firefighting Equipment A 324,219 421,195 421,195 U 11 Command and Control Switchboard A 2,219 2,255 U							
2 Allison 50lk Gas Turbine A 2,155 5,814 5,814 U 3 Surface Power Equipment A U 4 Hybrid Electric Drive (HED) 12,638 29,106 29,106 U Generators 5 Surface Combatant HM&E A 26,664 36,860 36,860 U Navigation Equipment A 39,298 87,481 87,481 U Periscopes 7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A 324,219 421,195 421,195 U 15 Pirefighting Equipment A 15,134 13,983 U 15,983 U 1 Command and Control Switchboard A 2,219 2,255 U	Ship Propulsion Equipment						
3 Surface Power Equipment A 4 Hybrid Electric Drive (HED) 12,638 29,106 29,106 U Generators 5 Surface Combatant HM&E A 26,664 36,860 36,860 U Navigation Equipment 6 Other Navigation Equipment A 39,298 87,481 87,481 U Periscopes 7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A U 9 DDG Mod A 324,219 421,195 421,195 U 10 Firefighting Equipment A 15,134 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	1 LM-2500 Gas Turbine	А	7,822	4,881		4,881	U
4 Hybrid Electric Drive (HED)  12,638  29,106  29,106  Cenerators  5 Surface Combatant HM&E  A 26,664  Navigation Equipment  6 Other Navigation Equipment  A 39,298  87,481  87,481  Periscopes  7 Sub Periscopes & Imaging Equip  A 57,221  63,109  63,109  Other Shipboard Equipment  8 Sub Periscope, Imaging and Supt Equip Prog  A 324,219  9 DDG Mod  A 324,219  10 Firefighting Equipment  A 15,134  11 Command and Control Switchboard  A 2,219  2,255  U	2 Allison 501k Gas Turbine	A	2,155	5,814		5,814	U
Generators  5 Surface Combatant HM&E  A 26,664 36,860 36,860 U  Navigation Equipment  6 Other Navigation Equipment  A 39,298 87,481 87,481 U  Periscopes  7 Sub Periscopes & Imaging Equip  A 57,221 63,109 63,109 U  Other Shipboard Equipment  8 Sub Periscope, Imaging and Supt Equip Prog  A 324,219 421,195 U  10 Firefighting Equipment  A 15,134 13,983 U  11 Command and Control Switchboard  A 2,219 2,255 U	3 Surface Power Equipment	A					U
5 Surface Combatant HMsE A 26,664 36,860 36,860 U Navigation Equipment 6 Other Navigation Equipment A 39,298 87,481 87,481 U Periscopes 7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A U 9 DDG Mod A 324,219 421,195 U 10 Firefighting Equipment A 15,134 13,983 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	4 Hybrid Electric Drive (HED)		12,638	29,106		29,106	U
Navigation Equipment 6 Other Navigation Equipment A 39,298 87,481 87,481 U Periscopes 7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A U 9 DDG Mod A 324,219 421,195 U 10 Firefighting Equipment A 15,134 13,983 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	Generators						
6 Other Navigation Equipment A 39,298 87,481 87,481 U  Periscopes 7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U  Other Shipboard Equipment 8 Sub Periscope, Imaging and Supt Equip Prog A U 9 DDG Mod A 324,219 421,195 421,195 U 10 Firefighting Equipment A 15,134 13,983 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	5 Surface Combatant HM&E	A	26,664	36,860		36,860	U
Periscopes 7 Sub Periscopes & Imaging Equip	Navigation Equipment						
7 Sub Periscopes & Imaging Equip A 57,221 63,109 63,109 U Other Shipboard Equipment  8 Sub Periscope, Imaging and Supt Equip Prog A  9 DDG Mod A 324,219 421,195 421,195 U 10 Firefighting Equipment A 15,134 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	6 Other Navigation Equipment	А	39,298	87,481		87,481	U
Other Shipboard Equipment  8 Sub Periscope, Imaging and Supt Equip Prog A  9 DDG Mod A 324,219 421,195 U  10 Firefighting Equipment A 15,134 13,983 13,983 U  11 Command and Control Switchboard A 2,219 2,255 U	Periscopes						
8 Sub Periscope, Imaging and Supt Equip Prog A  9 DDG Mod A 324,219 421,195 U  10 Firefighting Equipment A 15,134 13,983 13,983 U  11 Command and Control Switchboard A 2,219 2,255 U	7 Sub Periscopes & Imaging Equip	A	57,221	63,109		63,109	U
9 DDG Mod A 324,219 421,195 U 10 Firefighting Equipment A 15,134 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	Other Shipboard Equipment						
10 Firefighting Equipment A 15,134 13,983 U 11 Command and Control Switchboard A 2,219 2,255 U	8 Sub Periscope, Imaging and Supt Equip Prog	А					U
11 Command and Control Switchboard A 2,219 2,255 U	9 DDG Mod	А	324,219	421,195		421,195	U
	10 Firefighting Equipment	А	15,134	13,983		13,983	U
12 LHA/LHD Midlife A 13,826 26,545 U	11 Command and Control Switchboard	A	2,219	2,255		2,255	U
	12 LHA/LHD Midlife	A	13,826	26,545		26,545	U
13 LCC 19/20 Extended Service Life Program A 21,025 8,631 U	13 LCC 19/20 Extended Service Life Program	A	21,025	8,631		8,631	U
14 Pollution Control Equipment B 10,146 16,609 U	14 Pollution Control Equipment	В	10,146	16,609		16,609	U
15 Submarine Support Equipment A 11,815 10,498 U	15 Submarine Support Equipment	A	11,815	10,498		10,498	U

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

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## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget

Total Obligational Authority (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

***	FY 2017 Ident Base			FY 2017 OCO				S	
Line No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	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		15,514				15,514	U	
4 Hybrid Electric Drive (HED)			40,132				40,132	U	
Generators									
5 Surface Combatant HM&E	A		29,974				29,974	U	
Navigation Equipment									
6 Other Navigation Equipment	А		63,942				63,942	U	
Periscopes									
7 Sub Periscopes & Imaging Equip	А							U	
Other Shipboard Equipment									
8 Sub Periscope, Imaging and Supt Equip Prog	А	1	136,421				136,421	U	
9 DDG Mod	A	3	367 <b>,</b> 766			3	367,766	U	
10 Firefighting Equipment	A		14,743				14,743	U	
11 Command and Control Switchboard	A		2,140				2,140	U	
12 LHA/LHD Midlife	A		24,939				24,939	U	
13 LCC 19/20 Extended Service Life Program	A							U	
14 Pollution Control Equipment	В		20,191				20,191	U	
15 Submarine Support Equipment	A		8,995				8,995	U	

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

14 Jan 2016

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Liı	ne.	Ident	FY 2015	FY 2015 FY 2016 (Base & OCO) Base Enacted		FY 2016 Total Enacted	S e
No	o Item Nomenclature	Code	Quantity Cost	Quantity Cost	OCO Enacted Quantity Cost	Quantity Cost	
	6 Virginia Class Support Equipment	A	69,168	35,747		35,747	U
1	7 LCS Class Support Equipment		25,742	39,349		39,349	U
18	8 Submarine Batteries		32,752	23,072		23,072	U
19	9 LPD Class Support Equipment		35 <b>,</b> 979	45,929		45,929	U
20	0 DDG 1000 Class Support Equipment	А					U
2	1 Strategic Platform Support Equip	А	11,558	18,563		18,563	U
22	2 DSSP Equipment	А	5,518	7,376		7,376	U
23	3 CG Modernization	А	375,500				U
2	4 LCAC	А	7,380	15,125		15,125	U
2	5 Underwater EOD Programs		58 <b>,</b> 576	51,652		51,652	U
2	6 Items Less Than \$5 Million	А	70,512	95 <b>,</b> 349		95,349	U
2	7 Chemical Warfare Detectors	A	2,937	3,027		3,027	U
28	8 Submarine Life Support System	A	8,385	7,399		7,399	U
Re	eactor Plant Equipment						
2	9 Reactor Power Units	A	298,200				U
30	0 Reactor Components	A	288,822	296,095		296,095	U
00	cean Engineering						
3.	1 Diving and Salvage Equipment	A	10,572	15,982		15,982	U
Sr	mall Boats						
32	2 Standard Boats	A	180,365	29,982		29,982	U

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base	FY 2017 OCO	FY 2017 Total	S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	c -
16 Virginia Class Support Equipment	А	66,838		66,838	U
17 LCS Class Support Equipment		54,823		54,823	U
18 Submarine Batteries		23,359		23,359	U
19 LPD Class Support Equipment		40,321		40,321	U
20 DDG 1000 Class Support Equipment	А	33,404		33,404	U
21 Strategic Platform Support Equip	А	15,836		15,836	U
22 DSSP Equipment	А	806		806	U
23 CG Modernization	А				U
24 LCAC	А	3,090		3,090	U
25 Underwater EOD Programs		24,350		24,350	U
26 Items Less Than \$5 Million	А	88,719		88,719	U
27 Chemical Warfare Detectors	А	2,873		2,873	U
28 Submarine Life Support System	А	6,043		6,043	U
Reactor Plant Equipment					
29 Reactor Power Units	А				U
30 Reactor Components	А	342,158		342,158	U
Ocean Engineering					
31 Diving and Salvage Equipment	А	8,973		8,973	U
Small Boats					
32 Standard Boats	А	43,684		43,684	U

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

cal Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No Item Nomenclature	Ident Code	FY 2015 (Base & OCO) Quantity Cost	FY 2016  Base Enacted  Quantity Cost	FY 2016 OCO Enacted Quantity Cost	FY 2016 Total Enacted Quantity Cost	S e c
Training Equipment						
33 Other Ships Training Equipment	А	17,152	62,358		62,358	U
Production Facilities Equipment						
34 Operating Forces Ipe	A	39,306	58,138		58,138	U
Other Ship Support						
35 Nuclear Alterations	A	118,129	132,625		132,625	U
36 LCS Common Mission Modules Equipment		30,938	23,061		23,061	U
37 LCS MCM Mission Modules		15,270	67,451		67,451	U
38 LCS ASW Mission Modules						U
39 LCS SUW Mission Modules		14,750	35,228		35,228	U
40 Remote Minehunting System (RMS)	A		53,077		53,077	U
Logistic Support						
41 LSD Midlife		13,800	2,774 		2,774	U
Total Ships Support Equipment		2,275,493	1,846,326		1,846,326	
Budget Activity 02: Communications & Electronics	Equip					
Ship Sonars						
42 SPQ-9B Radar	A	26 <b>,</b> 735	19,841		19,841	U
43 AN/SQQ-89 Surf ASW Combat System	А	78 <b>,</b> 802	103,241		103,241	U
44 SSN Acoustics	A	160,932	232,835		232,835	U
45 SSN Acoustic Equipment	А					U
46 Undersea Warfare Support Equipment	A	4,663	7,331		7,331	U

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget

## Total Obligational Authority (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base	FY 2017 OCO	FY 2017 Total	s e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	C -
Training Equipment					
33 Other Ships Training Equipment	А				U
Production Facilities Equipment					
34 Operating Forces Ipe	A	75,421		75,421	U
Other Ship Support					
35 Nuclear Alterations	A	172,718		172,718	U
36 LCS Common Mission Modules Equipment		27,840		27,840	U
37 LCS MCM Mission Modules		57,146		57,146	U
38 LCS ASW Mission Modules		31,952		31,952	U
39 LCS SUW Mission Modules		22,466		22,466	U
40 Remote Minehunting System (RMS)	А				U
Logistic Support					
41 LSD Midlife		10,813		10,813	
Total Ships Support Equipment		1,878,390		1,878,390	
Budget Activity 02: Communications & Electronics E	quip				
Ship Sonars					
42 SPQ-9B Radar	А	14,363		14,363	U
43 AN/SQQ-89 Surf ASW Combat System	A	90,029		90,029	U
44 SSN Acoustics	А				U
45 SSN Acoustic Equipment	А	248,765		248,765	U
46 Undersea Warfare Support Equipment	А	7,163		7,163	U

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

14 Jan 2016

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

cal Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	e c -
47 Sonar Switches and Transducers	A	11,621	11,781		11,781	U
ASW Electronic Equipment						
48 Submarine Acoustic Warfare System	A	22,721	19,718		19,718	U
49 SSTD	А	10,653	8,396		8,396	U
50 Fixed Surveillance System	A	170,831	146,968		146,968	U
51 SURTASS	А	23,819	12,953		12,953	U
52 Maritime Patrol and Reconnsaisance Force	А	14,390	13,725		13,725	U
Electronic Warfare Equipment						
53 AN/SLQ-32	A	195,082	296,271		296,271	U
Reconnaissance Equipment						
54 Shipboard IW Exploit	А	123,362	138,002		138,002	U
55 Automated Identification System (AIS)		164	152		152	U
Submarine Surveillance Equipment						
56 Submarine Support Equipment Prog	А	36,938	78,816		78,816	U
Other Ship Electronic Equipment						
57 Cooperative Engagement Capability	В	33,939	25,695		25 <b>,</b> 695	U
58 Trusted Information System (TIS)		324	284		284	U
59 Naval Tactical Command Support System (NTCSS)	А	8,066	14,416		14,416	U
60 ATDLS	A	16,568	23,069		23,069	U
61 Navy Command and Control System (NCCS)		5,219	4,054		4,054	U
62 Minesweeping System Replacement	А	36,259	21,014		21,014	U

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Time	T 41 4	FY 2017	FY 2017	FY 2017	S
Line No Item Nomenclature	Ident Code	Base Quantity Cost	OCO Quantity Cost	Total Quantity Cost	e c
					-
47 Sonar Switches and Transducers	А				U
ASW Electronic Equipment					
48 Submarine Acoustic Warfare System	А	21,291		21,291	U
49 SSTD	А	6,893		6,893	U
50 Fixed Surveillance System	А	145,701		145,701	U
51 SURTASS	А	36,136		36,136	U
52 Maritime Patrol and Reconnsaisance Force	А				U
Electronic Warfare Equipment					
53 AN/SLQ-32	А	274,892		274,892	U
Reconnaissance Equipment					
54 Shipboard IW Exploit	А	170,733		170,733	U
55 Automated Identification System (AIS)		958		958	U
Submarine Surveillance Equipment					
56 Submarine Support Equipment Prog	А				U
Other Ship Electronic Equipment					
57 Cooperative Engagement Capability	В	22,034		22,034	U
58 Trusted Information System (TIS)					U
59 Naval Tactical Command Support System (NTCSS)	А	12,336		12,336	U
60 ATDLS	А	30,105		30,105	U
61 Navy Command and Control System (NCCS)		4,556		4,556	U
62 Minesweeping System Replacement	А	56,675		56 <b>,</b> 675	U

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	C -
63 Shallow Water MCM	В					U
64 Navstar GPS Receivers (SPACE)	A	15,232	12,359		12,359	U
65 American Forces Radio and TV Service	A	4,524	4,240		4,240	U
66 Strategic Platform Support Equip	A	7,308	17,440		17,440	U
Training Equipment						
67 Other Training Equipment	A	42,810	41,314		41,314	U
Aviation Electronic Equipment						
68 Matcals	A	19,779	10,011		10,011	U
69 Ashore ATC Equipment	A					U
70 Afloat ATC Equipment	A					U
71 Shipboard Air Traffic Control	В	9,366	9,346		9,346	U
72 Automatic Carrier Landing System	A	21,357	21,281		21,281	U
73 National Air Space System	В	26,639	25,621		25,621	U
74 Fleet Air Traffic Control Systems	A	9,672	8,249		8,249	U
75 Landing Systems	A	9,602	14,715		14,715	U
76 ID Systems	A	28,085	29,676		29,676	U
77 Naval Mission Planning Systems	A	13,950	13,737		13,737	U
Other Shore Electronic Equipment						
78 Deployable Joint Command & Control	А	1,205	1,314		1,314	U
79 Maritime Integrated Broadcast System		3,447				U
80 Tactical/Mobile C4I Systems	А	16,766	13,600		13,600	U

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No Item Nomenclature	Ident Code	FY 2017 Base Quantity Cost	FY 2017 OCO Quantity Cost	FY 2017 Total Quantity Cost	s e c
63 Shallow Water MCM	В	8 <b>,</b> 875		8,875	U
64 Navstar GPS Receivers (SPACE)	А	12,752		12,752	U
65 American Forces Radio and TV Service	А	4,577		4,577	U
66 Strategic Platform Support Equip	A	8 <b>,</b> 972		8,972	U
Training Equipment					
67 Other Training Equipment	А				U
Aviation Electronic Equipment					
68 Matcals	A				U
69 Ashore ATC Equipment	A	75,068		75,068	U
70 Afloat ATC Equipment	A	33,484		33,484	U
71 Shipboard Air Traffic Control	В				U
72 Automatic Carrier Landing System	A				U
73 National Air Space System	В				U
74 Fleet Air Traffic Control Systems	А				U
75 Landing Systems	A				U
76 ID Systems	А	22,177		22,177	U
77 Naval Mission Planning Systems	А	14,273		14,273	U
Other Shore Electronic Equipment					
78 Deployable Joint Command & Control	А				U
79 Maritime Integrated Broadcast System					U
80 Tactical/Mobile C4I Systems	А	27 <b>,</b> 927		27,927	U

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No Item Nomenclature	Ident Code	Quantity Cost	FY 2016  Base Enacted  Quantity Cost	FY 2016 OCO Enacted Quantity Cost	FY 2016 Total Enacted Quantity Cost	S e c -
81 DCGS-N	А	23,649	31,809		31,809	U
82 CANES		355,046	275,641		275,641	U
83 RADIAC	А	5,153	8,294		8,294	U
84 CANES-Intell		61,215	28,695		28,695	U
85 GPETE	А	6,284	6,962		6,962	U
86 MASF			290		290	U
87 Integ Combat System Test Facil	ity A	4,016	14,419		14,419	U
88 EMI Control Instrumentation	A	4,113	4,175		4,175	U
89 Items Less Than \$5 Million	А	64,235	66,176		66,176	U
Shipboard Communications						
90 Shipboard Tactical Communicati	ons A	14,410	8,722		8,722	U
91 Ship Communications Automation	A	20,830	108,477		108,477	U
92 Communications Items Under \$5M	A	14,145	16,613		16,613	U
Submarine Communications						
93 Submarine Broadcast Support	A	11,057	16,021		16,021	U
94 Submarine Communication Equipm	ment A	64,954	60,945		60,945	U
Satellite Communications						
95 Satellite Communications Syste	ms A	13,743	30,892		30,892	U
96 Navy Multiband Terminal (NMT)		233,162	118,113		118,113	U
Shore Communications						
97 JCS Communications Equipment	А	4,369	4,591		4,591	U

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# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base	FY 2017 OCO	FY 2017 Total	S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	
81 DCGS-N	А	12,676	12,000	24,676	U
82 CANES		212,030		212,030	U
83 RADIAC	A	8,092		8,092	U
84 CANES-Intell		36,013		36,013	U
85 GPETE	А	6,428		6,428	U
86 MASF					U
87 Integ Combat System Test Facility	A	8,376		8,376	U
88 EMI Control Instrumentation	A	3,971		3,971	U
89 Items Less Than \$5 Million	A	58,721		58,721	U
Shipboard Communications					
90 Shipboard Tactical Communications	А	17,366		17,366	U
91 Ship Communications Automation	А	102,479		102,479	U
92 Communications Items Under \$5M	А	10,403		10,403	U
Submarine Communications					
93 Submarine Broadcast Support	А	34,151		34,151	U
94 Submarine Communication Equipment	A	64,529		64,529	U
Satellite Communications					
95 Satellite Communications Systems	A	14,414		14,414	U
96 Navy Multiband Terminal (NMT)		38,365		38,365	U
Shore Communications					
97 JCS Communications Equipment	А	4,156		4,156	Ū

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget

## Total Obligational Authority

(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	s e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	C -
98 Electrical Power Systems	A	1,402	1,403		1,403	U
Cryptographic Equipment						
99 Info Systems Security Program (ISSP)	A	101,110	135,687		135,687	U
100 MIO Intel Exploitation Team	A	979	970		970	U
Cryptologic Equipment						
101 Cryptologic Communications Equip	A	11,502	11,433		11,433	U
Other Electronic Support						
102 Coast Guard Equipment	A	2,967	2,529		2,529	
Total Communications & Electronics Equip		2,229,171	2,354,322		2,354,322	-
Budget Activity 03: Aviation Support Equipment						
Sonobuoys						
103 Sonobuoys - All Types	А	182,890	168,763		168,763	U
Aircraft Support Equipment						
104 Weapons Range Support Equipment	A	47,944	46,979		46,979	U
105 Aircraft Support Equipment	А	55,195	123,884		123,884	U
106 Meteorological Equipment	А	12,825	15,090		15,090	U
107 DCRS/DPL	A	1,415	638		638	U
108 Airborne Mine Countermeasures	А	23,152	14,098		14,098	U
109 Aviation Support Equipment	А	47,105	49,773		49,773	
Total Aviation Support Equipment		370,526	419,225		419,225	-

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

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# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base		FY 2017 OCO		FY 2017 Total		s e	
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost		
								_	
98 Electrical Power Systems	А							U	
Cryptographic Equipment									
99 Info Systems Security Program (ISSP)	А		85 <b>,</b> 694				85,694	U	
100 MIO Intel Exploitation Team	А		920				920	U	
Cryptologic Equipment									
101 Cryptologic Communications Equip	А		21,098				21,098	U	
Other Electronic Support									
102 Coast Guard Equipment	A		32,291				32,291		
Total Communications & Electronics Equip			22,908		12,000		34 <b>,</b> 908	-	
Budget Activity 03: Aviation Support Equipment									
Sonobuoys									
103 Sonobuoys - All Types	A	1	62,588			1	62,588	U	
Aircraft Support Equipment									
104 Weapons Range Support Equipment	А		58,116				58,116	U	
105 Aircraft Support Equipment	А	1	20,324			1.	20,324	U	
106 Meteorological Equipment	А		29,253				29 <b>,</b> 253	U	
107 DCRS/DPL	А		632				632	U	
108 Airborne Mine Countermeasures	А		29,097				29 <b>,</b> 097	U	
109 Aviation Support Equipment	А		39,099				39,099	U	
Total Aviation Support Equipment			39,109			4	 39 <b>,</b> 109	•	

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	C -
Budget Activity 04: Ordnance Support Equipment						
Ship Gun System Equipment						
110 Ship Gun Systems Equipment	А	5,572	5,300		5,300	U
Ship Missile Systems Equipment						
111 Ship Missile Support Equipment	А	143,570	276,503		276,503	U
112 Tomahawk Support Equipment	А	60,062	71,245		71,245	U
FBM Support Equipment						
113 Strategic Missile Systems Equip	А	209,583	240,694		240,694	U
ASW Support Equipment						
114 SSN Combat Control Systems	А	60,767	96,040		96,040	U
115 ASW Support Equipment	А	7 <b>,</b> 559	30,189		30,189	U
Other Ordnance Support Equipment						
116 Explosive Ordnance Disposal Equip	В	124,549	22,623		22,623	U
117 Items Less Than \$5 Million	А	10,759	9,906		9,906	U
Other Expendable Ordnance						
118 Submarine Training Device Mods	А					U
119 Training Device Mods	А	70,672	99,707		99,707	U
120 Surface Training Equipment	А					U
Total Ordnance Support Equipment		693,093	852 <b>,</b> 207		852 <b>,</b> 207	

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base	FY 2017 OCO		S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	
Budget Activity 04: Ordnance Support Equipment					
Ship Gun System Equipment					
110 Ship Gun Systems Equipment	A	6,191		6,191	U
Ship Missile Systems Equipment					
111 Ship Missile Support Equipment	A	320,446		320,446	U
112 Tomahawk Support Equipment	A	71,046		71,046	U
FBM Support Equipment					
113 Strategic Missile Systems Equip	А	215,138		215,138	U
ASW Support Equipment					
114 SSN Combat Control Systems	А	130,715		130,715	U
115 ASW Support Equipment	А	26,431		26,431	U
Other Ordnance Support Equipment					
116 Explosive Ordnance Disposal Equip	В	11,821	99,329	111,150	U
117 Items Less Than \$5 Million	А	6,243		6,243	U
Other Expendable Ordnance					
118 Submarine Training Device Mods	А	48,020		48,020	U
119 Training Device Mods	A				U
120 Surface Training Equipment	А	97,514		97,514	U
Total Ordnance Support Equipment		933,565	99,329	1,032,894	

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Cotal Obligational Authority (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	
Budget Activity 05: Civil Engineering Support Equip						
Civil Engineering Support Equipment						
121 Passenger Carrying Vehicles	А	2,282	2,252	186	2,438	U
122 General Purpose Trucks	A	547	2,191		2,191	U
123 Construction & Maintenance Equip	A	7,256	2,164		2,164	U
124 Fire Fighting Equipment	А	15,321	14,705		14,705	U
125 Tactical Vehicles	В	766	2,497		2,497	U
126 Amphibious Equipment	A	8,682	12,517		12,517	U
127 Pollution Control Equipment	А	2,942	3,018		3,018	U
128 Items Under \$5 Million	А	15,553	14,403		14,403	U
129 Physical Security Vehicles	A	1,177	1,186		1,186	
Total Civil Engineering Support Equip		54,526	54,933	186	55,119	-
Budget Activity 06: Supply Support Equipment						
Supply Support Equipment						
130 Materials Handling Equipment	А	11,387	18,805		18,805	U
131 Supply Equipment	А					U
132 Other Supply Support Equipment	А	6,674	10,469		10,469	U
133 First Destination Transportation	А	5,724	5,720		5,720	U
134 Special Purpose Supply Systems	А	69,098	211,714		211,714	U
Total Supply Support Equipment		92 <b>,</b> 883	246,708		246,708	-

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

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# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	e c
Budget Activity 05: Civil Engineering Support Equip								-
Civil Engineering Support Equipment								
121 Passenger Carrying Vehicles	А	8	,853				8,853	U
122 General Purpose Trucks	А	4	<b>,</b> 928				4,928	U
123 Construction & Maintenance Equip	A	18	<b>,</b> 527			1	L8 <b>,</b> 527	U
124 Fire Fighting Equipment	А	13	<b>,</b> 569		630	1	L4 <b>,</b> 199	U
125 Tactical Vehicles	В	14	<b>,</b> 917			1	14,917	U
126 Amphibious Equipment	A	7	<b>,</b> 676				7,676	U
127 Pollution Control Equipment	А	2	,321				2,321	U
128 Items Under \$5 Million	А	12	<b>,</b> 459			1	12,459	U
129 Physical Security Vehicles	А	1,	<b>,</b> 095				1,095	
Total Civil Engineering Support Equip			<b>,</b> 345		630		34 <b>,</b> 975	•
Budget Activity 06: Supply Support Equipment								
Supply Support Equipment								
130 Materials Handling Equipment	А							U
131 Supply Equipment	A	16	,023			1	16,023	U
132 Other Supply Support Equipment	А							U
133 First Destination Transportation	А	5	<b>,</b> 115		25		5,140	U
134 Special Purpose Supply Systems	А	295	,471			29	95,471	U
Total Supply Support Equipment			<b>,</b> 609		25	31	L6,634	•

## Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget

### Total Obligational Authority

(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2015 (Base & OCO)	FY 2016 Base Enacted	FY 2016 OCO Enacted	FY 2016 Total Enacted	S e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost	Quantity Cost	c -
Budget Activity 07: Personnel & Command Support	Equip					
Training Devices						
135 Training Support Equipment	А	22,871	7,468		7,468	U
136 Training and Education Equipment	А					U
Command Support Equipment						
137 Command Support Equipment	Ā	26,238	36,433		36,433	U
138 Education Support Equipment	А	874	3,180		3,180	U
139 Medical Support Equipment	А	2,108	4,790		4,790	U
141 Naval MIP Support Equipment	A	3,573	4,608		4,608	U
142 Operating Forces Support Equipment	A		5,655		5,655	U
143 C4ISR Equipment	А	24,459	9,929		9,929	U
144 Environmental Support Equipment	A	18,030	23,009		23,009	U
145 Physical Security Equipment	A	82,132	88,453		88,453	U
146 Enterprise Information Technology	А	87,214	99,094		99,094	U
Other						
149 Cancelled Account Adjustments	А	74				U
150 Next Generation Enterprise Service	A	106,165	99,014		99,014	U
999 Classified Programs		13,247	21,439	12,000	33,439	
Total Personnel & Command Support Equip		386,985	403,072		415,072	-

P-1C1: FY 2017 President's Budget (Published Version of PB Position), as of January 14, 2016 at 09:48:40

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# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e
No Item Nomenclature	Code	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 07: Personnel & Command Support E	quip							
Training Devices								
135 Training Support Equipment	A							U
136 Training and Education Equipment	A		9,504				9,504	U
Command Support Equipment								
137 Command Support Equipment	A		37,180		10,562	4	7,742	U
138 Education Support Equipment	A							U
139 Medical Support Equipment	A		4,128				4,128	U
141 Naval MIP Support Equipment	А		1,925				1,925	U
142 Operating Forces Support Equipment	А		4,777				4,777	U
143 C4ISR Equipment	A		9,073				9,073	U
144 Environmental Support Equipment	А		21,107			2	1,107	U
145 Physical Security Equipment	A	1	00,906			10	0,906	U
146 Enterprise Information Technology	A		67,544			6	7,544	U
Other								
149 Cancelled Account Adjustments	A							U
150 Next Generation Enterprise Service	А		98,216			9	8,216	U
999 Classified Programs			9,915		1,660		1,575	
Total Personnel & Command Support Equip		3	64 <b>,</b> 275		12,222		6,497	•

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016 (Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line No Item Nomenclature Budget Activity 08: Spares and Repair Parts	Ident Code 	FY 2015 (Base & OCO) Quantity Cost	FY 2016  Base Enacted  Quantity Cost	FY 2016 OCO Enacted Quantity Cost	FY 2016 S Total Enacted e Quantity Cost c
Spares and Repair Parts					
151 Spares and Repair Parts	А	302,471	307,464		307,464 U
Total Spares and Repair Parts		302,471	307,464		307,464
Total Other Procurement, Navy		6,405,148	6,484,257	12,186	6,496,443

# Department of the Navy FY 2017 President's Budget Exhibit P-1 FY 2017 President's Budget Total Obligational Authority

Total Obligational Authority 14 Jan 2016
(Dollars in Thousands)

Appropriation: 1810N Other Procurement, Navy

Line	Ident	FY 2017 Base	FY 2017 OCO	FY 2017 S Total e
No Item Nomenclature	Code	Quantity Cost	Quantity Cost	Quantity Cost c
Budget Activity 08: Spares and Repair Parts Spares and Repair Parts				
151 Spares and Repair Parts	A	199,660		199,660 U
Total Spares and Repair Parts		199,660		199,660
Total Other Procurement, Navy		6,338,861		6,463,067

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7	01	08	0831	Sub Periscopes & Imaging Equip	
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10	01	09	0910	Firefighting Equipment	Volume 1 - 241
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### Appropriation 1810N: Other Procurement, Navy

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21	01	09	0950	Strategic Platform Support Equip	Volume 1 - 427
22	01	09	0955	Deep Subm Sys Proj (DSSP) Equip	Volume 1 - 443
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24	01	09	0970	LCAC	Volume 1 - 483
25	01	09	0977	Underwater EOD Programs	Volume 1 - 487
26	01	09	0981	Items less than \$5 Million	
27	01	09	0989	Chemical Warfare Detectors	Volume 1 - 553
28	01	09	0990	Submarine Life Support System	Volume 1 - 573
29	01	10	1010	Reactor Power Units	Volume 1 - 583
30	01	10	1020	Reactor Components	Volume 1 - 587
31	01	11	1130	Diving and Salvage Equipment	Volume 1 - 591
32	01	12	1210	Standard Boats	Volume 1 - 613
33	01	13	1320	Other Ships Training Equipment	
34	01	14	1445	Operating Forces IPE	Volume 1 - 629

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## Appropriation 1810N: Other Procurement, Navy

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# Navy • President's Budget Submission FY 2017 • Procurement

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78	02	10	2804	Depl JT Cmd & Control (DJC2)	Volume 2 - 683
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# Appropriation 1810N: Other Procurement, Navy

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91	02	11	3050	Ship Communications Automation	Volume 2 - 837
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95	02	13	3215	Satellite Communications Systems	Volume 2 - 925
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97	02	14	3302	JCS Communications Equipment	Volume 2 - 951
98	02	14	3303	Electrical Power Systems	Volume 2 - 955
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105	03	03	4213	Aircraft Support EquipmentVolume 3 - 21
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107	03	03	4242	DCRS/DPLVolume 3 - 65
108	03	03	4248	Aviation Mine CountermeasuresVolume 3 - 69
109	03	03	4268	Aviation Support Equipment

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## Appropriation 1810N: Other Procurement, Navy

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117	04	06	5543	Items Less Than \$5 Million	Volume 4 - 143
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## Appropriation 1810N: Other Procurement, Navy

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# Navy • President's Budget Submission FY 2017 • Procurement

## Appropriation 1810N: Other Procurement, Navy

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## Appropriation 1810N: Other Procurement, Navy

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Strategic Platform Support Equip	2676	66	02	07	Volume 2 - 447
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Submarine Support Equipment	0941	15	01	09	Volume 1 - 311
Submarine Supt Equip Prog	2560	56	02	06	Volume 2 - 303
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Surface Ship Torpedo Def (SSTD)	2213	49	02	03	Volume 2 - 157
Surface Training Equipment	5664	120	04	07	Volume 4 - 187

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Tactical/Mobile C4I Systems	2906	80	02	10	Volume 2 - 701
Tomahawk Support Equipment	5253	112	04	03	Volume 4 - 49
Training Device Mods	5662	119	04	07	Volume 4 - 173
Training Support Equipment	8081	135	07	01	Volume 5 - 93
Training and Education Equipment	8101	136	07	01	Volume 5 - 109
Trusted Information System (TIS)	2608	58	02	07	Volume 2 - 365
Undersea Warfare Support Equipment	2176	46	02	02	Volume 2 - 109
Underwater EOD Programs	0977	25	01	09	Volume 1 - 487
Virginia Class Support Equipment	0942	16	01	09	Volume 1 - 331
Weapons Range Support Equipment	4204	104	03	03	Volume 3 - 13

Date: February 2016 Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 1:

4048 / Sonobuoys - All Types

Sonobuovs

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	Item MD	AP/MAIS Cod	e(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,187.069	182.890	168.763	162.588	-	162.588	198.510	199.533	203.896	207.967	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	1,187.069	182.890	168.763	162.588	-	162.588	198.510	199.533	203.896	207.967	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	1,187.069	182.890	168.763	162.588	-	162.588	198.510	199.533	203.896	207.967	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	e corresponding	n budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

#### Description:

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.

IP5 / AN/SSQ-36 (BT) QZ0011: 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.

[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.

[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.

[P5 / AN/SSQ-101 (ADAR) 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.

[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.

[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.

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 1:

4048 / Sonobuoys - All Types

Sonobuoys

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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits C	D D	Quantity / Total Cost (Each) / (\$ M)					
P-5	1 / Sonobuoys, All Types	P-5a, P-21		- / 1,187.069	- / 182.890	- / 168.763	- / 162.588	- / -	- / 162.588
P-40	Total Gross/Weapon System Cost			- / 1,187.069	- / 182.890	- / 168.763	- / 162.588	- 1 -	- /162.588

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

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

#### Justification:

The FY 2017 funding request was reduced by \$6.9 million as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The level of sonobuoy procurement funding enables several facets of the Navy's overall ASW mission readiness. This funding profile puts sonobuoy procurement on a trajectory to meet minimum inventory requirements for the entire family of air delivered acoustic sensors by the end of the FYDP. 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 maintaining fleet commander deployment readiness levels in the Anti-Submarine Warfare (ASW) mission area.

Exhibit P-5, Cost	Analysis	s: PB 20°	17 Navv											Date: F	ebruary 2	2016		
Appropriation / B 1810N / 03 / 1					vity:	I	ine Item / Sonobi							Item Nu	ımber / 1	Title [DO	DIC]:	
D Code (A=Service Read	dy, B=Not Servi	ce Ready):							МЕ	DAP/MAIS	Code:		,					
F	Resource	Summa	ary		F	Prior Yea	ars	FY 20	15	FY	2016	FY 2	2017 Bas	se F	Y 2017 (	ОСО	FY 2017	Total
Procurement Quantity (Un	its in Each)						-		-		_			-		-		
Gross/Weapon System Co	ost (\$ in Million	s)				1,	187.069		182.890		168.763	3	16	2.588		-		162.58
ess PY Advance Procure	ement (\$ in Mil	lions)					-		-		-			-		-		
Net Procurement (P-1) (\$	in Millions)					1,	187.069		182.890		168.763	3	16	2.588		-		162.58
Plus CY Advance Procure	ment (\$ in Mill	lions)					-		-		-			-		-		
Total Obligation Authori	ty (\$ in Millions	:)				1,	187.069		182.890		168.76	3	16	2.588		-		162.58
(T	he following F	Resource Su	mmary row	s are for info	rmational pu	irposes only	. The corres	onding bud	get request:	s are docum	ented elsewh	ere.)				,		
nitial Spares (\$ in Millions)							-		-		-			-		- [		-
Gross/Weapon System U	nit Cost (\$ in [	Dollars)					-		-		-			-		-		-
Note: Subtotals or Totals i				r sum exactly		nding.	_			_			1					
	P	rior Years			FY 2015			FY 2016		FY	2017 Base		F'	Y 2017 OC	_	F'	Y 2017 Tota	
Cost Elements	Unit Cost	Qty (Each)	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 (Com	mon) Cost	, ,		1.7	, ,		(1)	, ,	,,,,	1.7	, ,	,,,,	1.7	, ,	, , ,		, ,	
Recurring Cost																		
1.1.1) AN/SSQ-36 (BT) QZ001 <sup>(†)</sup> (1)	621.44	11,211	6.967	648.68	2,395	1.554	650.81	3,090	2.011	688.05	2,369	1.630	-	-	-	688.05	2,369	1.63
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†) (2)</sup>	745.20	313,410	233.554	796.24	59,178	47.120	912.13	111,949	102.112	956.00	77,027	73.638	-	-	-	956.00	77,027	73.63
1.1.3) AN/SSQ-62 (DICASS) QZ004 <sup>(†) (3)</sup>	1,592.74	36,014	57.361	1,736.83	7,573	13.153	1,885.71	7,210	13.596	1,864.17	10,300	19.201	-	-	-	1,864.17	10,300	19.20
Subtotal: Recurring Cost	-	-	297.882	-	-	61.827	-	-	117.719	-	-	94.469	-	-	-	-	-	94.46
Subtotal: Hardware - Sonobuoys (Common) Cost	-	-	297.882	-	-	61.827	-	-	117.719	-	-	94.469	-	-	-	-	-	94.46
Hardware - Sonobuoys (Multi	static) Cost																	
Recurring Cost															1	1		
2.1.1) AN/SSQ-101 (ADAR) QZ006 <sup>(†) (4)</sup>	4,273.62	14,129	60.382	3,390.23	9,146	31.007	3,481.58	12,185	42.423	3,709.76	6,675	24.763	-	-	-	3,709.76	6,675	24.76
2.1.2) AN/SSQ-125 (Multistatic Coherent Source) QZ010 <sup>(†) (5)</sup>	4,846.07	17,164	83.178	4,161.16	19,149	79.682	-	-	-	4,637.88	7,508	34.821	-	-	-	4,637.88	7,508	34.82
Subtotal: Recurring Cost	-	-	143.560	-	-	110.689	-	-	42.423	-	-	59.584	-	-	-	-	-	59.58
Subtotal: Hardware -	_	-	143.560	_	-	110.689			42.423		-	59.584	_	_	_		-	59.58
Sonobuoys (Multistatic) Cost Hardware - Sonobuoys (Othe																		

LI 4048 - Sonobuoys - All Types Navy UNCLASSIFIED
Page 3 of 11

Exhibit P-5, Cost Analysis: PB 2017 Navy Date: February 2016

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.

	P	rior Years	;		FY 2015			FY 2016		FY	' 2017 Ba	se	FY	2017 OC	0	FY	<sup>2017</sup> Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (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>	392.20	5,000	1.961	364.88	5,150	1.879	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Recurring Cost	-	-	1.961	-	-	1.879	-	-	-	-	-	-	-	-	-	-	-	ĺ
Subtotal: Hardware - Sonobuoys (Other) Cost	-	-	1.961	-	-	1.879	-	-	-	-	-	-	-	-	-	-	-	
Hardware - Acceptance Testi	ng Cost	·											•			,		
Recurring Cost																		
4.1.1) Common QZ860	-	-	12.074	-	-	1.746	-	-	1.764	-	-	1.782	-	-	-	-	-	1.7
4.1.2) Multistatic QZ860	-	-	5.845	-	-	2.816	-	-	2.936	-	-	2.830	-	-	-	-	-	2.
4.1.3) Other QZ860	-	-	0.045	-	-	0.048	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Recurring Cost	-	-	17.964	-	-	4.610	-	-	4.700	-	-	4.612	-	-	-	-	-	4.0
Subtotal: Hardware - Acceptance Testing Cost	-	-	17.964	-	-	4.610	-	-	4.700	-	-	4.612	-	-	-	-	-	4.0
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 Enginee	ering Cost				'		·			,		'	'			,		
6.1) Common QZ830	-	-	12.311	-	-	1.533	-	-	1.545	-	-	1.523	-	-	-	-	-	1.5
6.2) Multistatic QZ830	-	-	5.311	-	-	2.310	-	-	2.376	-	-	2.400	-	-	-	-	-	2.4
6.3) Other QZ830	-	-	0.037	-	-	0.042	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: Support - Production Engineering Cost	-	-	17.659	-	-	3.885	-	-	3.921	-	-	3.923	-	-	-	-	-	3.9
Gross/Weapon System Cost	-	-	1,187.069	-	-	182.890	-	-	168.763	-	-	162.588	-	-	-	-	-	162.5

#### 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.

[Hardware] Sonobuoys under prior subheads are not included in Prior Years amount.

(†) indicates the presence of a P-5a

	UNCLASSIFIED	
Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
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:	
Footnotes:		
(1) AN/SSQ-36 unit cost increase from FY16 to FY17 is due to a quantity of	decrease.	
(2) AN/SSQ-53 unit cost increase from FY15 to FY16 is due to the incorpo	oration of High Altitude ASW (HAASW) capabilities. AN/SSQ-53	unit cost increase from FY16 to FY17 is due to a quantity decrease.
(3) AN/SSQ-62 unit cost increase from FY15 to FY16 is due to the incorpo		' ,
(4) AN/SSQ-101 unit cost increase from FY15 to FY16 is due to the incorp		101 unit cost increase from FY16 to FY17 is due to a quantity decrease.
(5) AN/SSQ-125 unit cost increase from FY15 to FY17 is due to a quantity AN/SSQ-125 quantity decrease to zero in FY16 is a result of buying to but	decrease. SONOBUOYS - ALL TYPES are procured annually	to maintain the OPNAV Naval Munitions Requirements Process (NMRP).

LI 4048 - Sonobuoys - All Types Navy

Exhibit P-5a, Procurement History and Planning: PB 2017 Navy

Date: February 2016

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

	0			Method/Type or	71	Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	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			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			Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2015	Nov 2016	3,090	650.81	Y		Apr 2013
1.1.1) AN/SSQ-36 (BT) QZ001		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2016	Nov 2017	2,369	688.05	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	111,949	912.13	Y		Apr 2013
1.1.2) AN/SSQ-53 (DIFAR) QZ002 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2016	Nov 2017	77,027	956.00	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	7,210	1,885.71	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	10,300	1,864.17	Y		Apr 2013
2.1.1) AN/SSQ-101 (ADAR) 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 (ADAR) 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 (ADAR) QZ006 <sup>(†)</sup>		2016	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Feb 2016	Feb 2017	12,185	3,481.58	Y		Apr 2013
2.1.1) AN/SSQ-101 (ADAR) QZ006 <sup>(†)</sup>		2017	ERAPSCO / Columbia City IN	C / FFP	NAVAIR	Nov 2016	Nov 2017	6,675	3,709.76	Y		Apr 2013
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	Nov 2016	Nov 2017	7,508	4,637.88	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	Υ		Apr 2013

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Exhibit P-5a, Procurement History and Planning: PB 2017	Navy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 1	4048 / Sonobuoys - All Types	1 / Sonobuoys, All Types

	0			Method/Type			Date			Specs	Date	
	C			or		Award	of First	Qtv	Unit Cost	Avail	Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
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

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

LI 4048 - Sonobuoys - All Types Navy

Exhibit P-21	Droduc																				1_							
	FIOUUC	tion Sc	hedul	e: PB	201	7 Nav	'y														Date	: Feb	oruary	201	6			
<b>Appropriatio</b> 1810N / 03 /		jet Acti	vity /	Budg	et Sı	ıb Ac	tivity	:		<b>l Line</b> 48 / Sc															ypes	DIC]:		
	ost Elements its in Thousand								Fiscal \	rear 2014											Fiscal Y	ear 2015						В
		ACCEPT									C	alenda	Year 20	14								Caler	ndar Yea	r 2015				L
O F C R O # FY SER	PROC	PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	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	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	A U G	S E P	A N C E
1.1.2) AN/SSQ-53 (D		2)																										
Prior Years Deliverie																												
1 2014 NAVY			110.000										Α -	-	-	-	-	-	-	-	-	-	-	-	11.751		12.251	73.94
1 2015 NAVY			59.178																		Α -	-	-	-	-	-	-	59.17
1 2016 NAVY			111.949																									111.9
1 2017 NAVY			77.027	_																								77.02
1.1.3) AN/SSQ-62 (D		(3)																										
Prior Years Deliverie		- 1																										1
2 2014 NAVY			10.000										Α -	-	-	-	-	-	-	-	-	-	-	-	1.067	1.067	1.067	6.79
2 2015 NAVY 2 2016 NAVY		_	7.573																		Α -	-	-	-	-	-	-	7.57
2 2016 NAVY 2 2017 NAVY			7.210																									7.2 <sup>2</sup>
			10.300																									10.30
		(4)																										
Prior Years Deliverie	: 6086		9.042										Ι Δ												950	950	950	E 46
Prior Years Deliverie	8: 6086	3 -	8.043										Α -	-	-	-	-	-	-	-	-	- A -	-	-	.859	.859	.859	5.46
3 2014 NAVY 3 2015 NAVY	8.04 9.14	3 -	9.146										A -	-	-	-	-	-	-	-	-	- A -	-	-	.859	.859	.859	9.14
Prior Years Deliverie  3 2014 NAVY  3 2015 NAVY  3 2016 NAVY	8: 6086 8.04 9.14 12.18	3 - 6 - 5 -	9.146 12.185										A -	-	-	-	-	-	-	-	-		-		+			9.14
Prior Years Deliverie  3 2014 NAVY  3 2015 NAVY  3 2016 NAVY  3 2017 NAVY	8: 6086 8.04 9.14 12.18 6.67	3 - 6 - 5 -	9.146 12.185 6.675	5)									Α -	-	-	-	-	-	-	-	-		-		+			9.14
Prior Years Deliverie  3 2014 NAVV 3 2015 NAVV 3 2016 NAVV 3 2017 NAVV 2.1.2) AN/SSQ-125 (	8: 6086 8.04 9.14 12.18 6.67 Multistatic Coh	3 - 6 - 5 -	9.146 12.185 6.675	5)									A -	-	-	-	-	-	-	-	-		-		+			9.14
Prior Years Deliverie    3   2014   NAVV   3   2015   NAVV   3   2016   NAVV   3   2017   NAVV   2.1.2) AN/SSQ-125 (   Prior Years Deliverie	8: 6086 8.04 9.14 12.18 6.67 Multistatic Coh	3 - 6 - 5 - 5 - cerent Source	9.146 12.185 6.675 e) QZ010 (	5)										-	-	-	-	-	-	-	-		-		-	-	-	9.14 12.18 6.67
Prior Years Deliverie  3 2014 NAVV 3 2015 NAVV 3 2016 NAVV 3 2017 NAVV 2.1.2) AN/SSQ-125 (	8: 6086 8.04 9.14 12.18 6.67 Multistatic Coh 8: 7401	3 - 6 - 5 - 5 - erent Source	9.146 12.185 6.675	5)									A -									A -	-	-	+			9.14
Prior Years Deliverie    3   2014   NAVV   3   2015   NAVV   3   2016   NAVV   3   2017   NAVV   2.1.2) AN/SSQ-125 (   Prior Years Deliverie   4   2014   NAVV	8: 6086 8.04 9.14 12.18 6.67 Multistatic Coh 8: 7401 9.76 19.14	3 - 6 - 5 - 5 - errent Source 3 - 9 -	9.146 12.185 6.675 e) QZ010 (9.763	5)														-	-	-	-	A -	-	-	1.064	1.064	1.064	9.14 12.18 6.67

LI 4048 - Sonobuoys - All Types Navy UNCLASSIFIED
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																							1_							
Exnib	it P	-21, Pr	oducti	on Sc	hedul	e: PB	201	7 Nav	У														Date	: Feb	ruary	2016				
<b>Appro</b> 8101		<b>ation</b> / 3 / 1	Budge	et Acti	vity /	Budg	et Sı	ıb Ac	tivity:			<b>Line</b> 8 / Sc													<b>ber /</b> uoys,			OIC]:		
			lements Thousands	)							Fiscal Ye	ear 2016											Fiscal Ye	ear 2017						В
				ACCEPT									С	alendar	Year 201	6								Calen	dar Year	2017				î
M F R R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J U	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	N N J	n n	A U G	S E P	A N C E
1.1.2) Al	N/SSQ-	-53 (DIFAR)	QZ002 (2)																											
Prior Yea	ars Del	liveries: 203	410																											
1 2	2014	NAVY	110.000	36.053	73.947	12.751	12.751	12.751	12.051	11.951	11.692																			
-	2015		59.178	-	59.178	-	-	-	-	-	6.000	6.500	6.500	7.000	7.000	7.000	6.500	6.500	6.178											
	2016		111.949	-	111.949					Α -	-	-	-	-	-	-	-	-	-	-	-	12.000	12.500	12.500	12.500	12.500	12.500	12.500	12.500	-
	2017		77.027	-	77.027														A -	-	-	-	-	-	-	-	-	-	-	77.0
1.1.3) Al	N/SSQ-	-62 (DICAS	S) QZ004 <sup>(3</sup>	3)																										
Prior Yea	ars Del	liveries: 260	14																											
	2014		10.000	3.201	6.799	1.167	1.167	1.167	1.167	1.067	1.064																			
	2015		7.573	-	7.573	-	-	-	-	-	.825	.825	.850	.850	.850	.850	.850	.850	.823											
2 2	_	NAVY	7.210	-	7.210					Α -	-	-	-	-	-	-	-	-	-	-	-	.750	.800	.850	.850	.850	.800	.800	.760	.7
2 2		NAVY	10.300	-	10.300														A -	-	-	-	-	-	-	-	-	-	-	10.3
		-101 (ADAR		)																										
		liveries: 608																												
	2014		8.043	2.577		.959	.959	.959	.870	.870	.849		1																	
$\rightarrow$		NAVY	9.146	-	9.146	-	-	-	-	-	-	.900	1.000	1.000	1.100	1.100	1.100	1.000	1.000	.946			1							-
		NAVY	12.185	-	12.185					A -	-	-	-	-	-	-	-	-	-	-	-	1.100	1.200	1.500	1.500	1.500	1.500	1.500	1.200	_
3 2		NAVY	6.675	-	6.675	5													A -	-	-	-	-	-	-	-	-	-	-	6.6
		-125 (Multist		ent Source	e) QZ010 <sup>(</sup>	5)																								
		liveries: 740	1																											
	2014		9.763	3.192		1.164	1.164	1.064	1.064	1.064	1.051	[	1																	<u> </u>
-	-	NAVY	19.149	-	19.149	-	-	2.000	2.100	2.200	2.200	2.200	2.200	2.100	2.100	2.049			. 1				1		I					
4 2	2017	NAVY	7.508	-	7.508	_		_									-		A -	-	-	-	-	-	-	-	-	-	-	7.5
						O C T	N O V	D E C	A	F E B	M A R	A P R	M A Y	N N	J 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	N N	n n	A U G	S E P	

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	P-21, P																							bruary					
<b>Approp</b> 1810N <i>I</i>	riation / ' 03 / 1	Budge	et Acti	vity /	Budg	et Su	ıb Act	tivity	:					ber / `										<b>nber</b> / ouoys,			DIC]:		
		Elements																											
	(Units in	Thousands,		1	-					Fiscal Ye	ear 2018											Fiscal Y	ear 2019						4
м			ACCEPT PRIOR	BAL								C	alendar	Year 201	8								Calei	ndar Yea	r 2019				
D F C R D # FY	SERVICE	PROC QTY	TO 1 OCT 2017	DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	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	J U L	A U G	S E P	
1.1.2) AN/S	SQ-53 (DIFAF	R) QZ002 <sup>(2)</sup>																											
	Deliveries: 20																												
1 201	4 NAVY	110.000	110.000	-			-	-			-																		
1 201	5 NAVY	59.178	59.178	-	1																								
1 201	6 NAVY	111.949	99.500	12.449	12.449																								
1 201	7 NAVY	77.027	-	77.027	-	8.000	8.500	8.500	9.000	9.000	9.000	8.500	8.500	8.027															
1.1.3) AN/S	SQ-62 (DICAS	SS) QZ004 <sup>(3</sup>	3)																										
	Deliveries: 26																												
2 201	4 NAVY	10.000	10.000	-																									
2 201	5 NAVY	7.573	7.573	-	1																								
2 201	6 NAVY	7.210	6.460	.750	.750																								
2 201	7 NAVY	10.300	-	10.300	-	1.000	1.000	1.300	1.300	1.300	1.300	1.100	1.000	1.000															
2.1.1) AN/S	SQ-101 (ADA	R) QZ006 <sup>(4)</sup>	)																										
	Deliveries: 60																												_
3 201	4 NAVY	8.043	8.043	-																									
3 201	5 NAVY	9.146	9.146	-	1																								
3 201	6 NAVY	12.185	11.000	1.185	1.185																								
3 201	7 NAVY	6.675	-	6.675	-	.740	.740	.740	.745	.745	.745	.740	.740	.740															
2.1.2) AN/S	SQ-125 (Multi	static Coher	ent Source	e) QZ010	(5)																								
Prior Years	Deliveries: 74	01																											
4 201	4 NAVY	9.763	9.763	-																									
4 201	5 NAVY	19.149	19.149	-	1																								
4 201	7 NAVY	7.508	-	7.508	-	.800	.800	.800	.900	.900	.900	.808	.800	.800															
					0	N	D	J	F	М	A	М	J	J	A	S	0	N	D	, (	F	М	A	М	J	J	A	S	
					C	0 V	E C	A N	E B	A R	P R	A Y	U N	U L	U G	E P	C T	0 V	E C	A N	E B	A R	P R	A	U N	U L	U G	E P	
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Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 1	4048 / Sonobuoys - All Types	1 / Sonobuoys, All Types

		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFR						lni	tial			Red	order	
Ref #		MSR For 2017	1-8-5 For 2017	MAX For 2017	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	-	-	-	-
2	ERAPSCO - Columbia City IN	10,000	26,000	67,000	24	1	12	13	-	-	-	-
3	ERAPSCO - Columbia City IN	2,000	8,000	12,500	24	5	12	17	-	-	-	-
4	ERAPSCO - Columbia City IN	2,000	7,000	19,500	24	2	12	14	-	-	-	-

<sup>&</sup>quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navv

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4204 / Weapons Range Support Equipment

Aircraft Support Equipment

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

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

Line Item MDAP/MAIS Code: N/A	Item MD	AP/MAIS Cod	e(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	491.449	47.944	46.979	58.116	-	58.116	50.347	65.624	49.529	59.118	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	491.449	47.944	46.979	58.116	-	58.116	50.347	65.624	49.529	59.118	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	491.449	47.944	46.979	58.116	-	58.116	50.347	65.624	49.529	59.118	Continuing	Continuing
(The following	g Resource Sumi	mary rows are fo	r informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	3.596	3.423	3.000	-	3.000	3.328	3.232	3.452	3.523	Continuing	Continuing
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

#### **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), Tactical Combat Training System (TCTS), Undersea Warfare Training Range/ Pacific Fleet Portable 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, 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. Some 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 and portable underwater training ranges. 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. The Portable Underwater Training Range (PUTR) will support ASW training for Forward Deployed Naval Forces (FDNF) in the Pacific. Efforts on the previous PUTR system were completed in FY10. 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: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4204 / Weapons Range Support Equipment

Aircraft Support Equipment

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

Item MDAP/MAIS Code(s): 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 / SC039 TCTS - Transportable Ground Subsystem]: 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 / SC138 TCTS - Portable Ground Subsystem]: The Tactical Combat Training System (TCTS) will procure portable 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) will provide Naval Forces with a fast and highly maneuverable surrogate for the threat vehicles currently encountered in combat operations. The MLT will operate primarily on unpaved roads, support Close Air Support (CAS) and Time-Sensitive Targeting (TST) training, and enable Joint Terminal Air Controllers (JTACs) and aircrews to identify and engage moving targets not normally associated with traditional enemy forces. This line was previously titled FRP Targets.

[P5 / SC711 Fallon LVC]: Funds Fallon Range Phase II/Live Virtual Constructive (LVC) 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 F/A-18 E/F aircraft on the Fallon Range. Effort will modify Fallon 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 1 systems to correct system deficiencies. These block upgrades were previously budgeted under SC920, TCTS Non-Recurring.

LI 4204 - Weapons Range Support Equipment Navy

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4204 / Weapons Range Support Equipment

Aircraft 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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule		<b>Prior Years</b>	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits CD	Quantity / Total Cost (Each) / (\$ M)					
P-5	1 / Weapons Range Support Equipment	P-5a	- / 491.449	- / 47.944	- /46.979	- / 58.116	- / -	- / 58.116
P-40	Total Gross/Weapon System Cost		- / 491.449	- / 47.944	- / 46.979	- / 58.116	- 1 -	- / 58.116

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

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

#### Justification:

Navy

Funding is required in FY2017 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.

FY2017 total funding increases from FY2016 due to the requirement to field infrastructure to enable LVC training capability at NAS Fallon.

							U	NCLAS	SILIE	,								
Exhibit P-5, Cost	Analysis	s: PB 20	17 Navy	,										Date: Fe	ebruary 2	2016		
Appropriation / B 1810N / 03 / 3					ivity:	l l		<b>n Numbe</b> ons Rang			Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment							
ID Code (A=Service Read	dy, B=Not Serv	ice Ready):				l			МІ	DAP/MAIS	Code:							
F	F	Prior Yea	ars	FY 2015		FY 2016		FY 2	2017 Bas	se F	Y 2017 (	ОСО	FY 2017 To					
Procurement Quantity (Uni			,				_							-		_		
Gross/Weapon System Co			491.449		47.944		46.9	79	58	3.116		-		58.116				
Less PY Advance Procure			-							-		-	_					
Net Procurement (P-1) (\$ i			491.449		47.944		46.9	79	58	3.116		-		58.116				
Plus CY Advance Procure			-		-			-		-		-		-				
Total Obligation Authorit	t <b>y</b> (\$ in Millions	s)					491.449		47.944		46.9	79	58	3.116		-		58.116
(TI	he following i	Resource St	ummary row	s are for info	rmational pu	urposes only	. The corres	sponding bud	get request	s are docume	ented elsew	here.)						
Initial Spares (\$ in Millions)							-		3.596		3.4	23	3	3.000		-		3.000
Gross/Weapon System Ur	nit Cost (\$ in I	Dollars)					-		-			-		-				
					·									'		,		
Note: Subtotals or Totals in	n this Exhibit	t P-5 may no	ot be exact o	or sum exactl	y due to rou	inding.	1			_			-		_			
	Prior Years			FY 2015				FY 2016		FY 2017 Base		se	FY 201		2017 OCO		FY 2017 Total	
Cost Elements	Unit Cost	<b>Qty</b> (Each)	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	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware - Systems Replace	. ,	ernization Cos	_ ' '			, ,		, ,	, ,	1.7		,,,	,,,	. ,	,	, , ,		
Recurring Cost																		
1.1.1) SC004 SRAM - Systems Replacement and Modernization	-	-	141.704	-	-	9.287	-	-	9.554	-	-	9.772	-	-	-	-	-	9.772
Subtotal: Recurring Cost	-	-	141.704	-	-	9.287	-	-	9.554	-	-	9.772	-	-	-	-	-	9.772
Subtotal: Hardware - Systems Replacement and Modernization Cost	-	-	141.704	-	-	9.287	-	-	9.554	-	-	9.772	-	-	-	-	-	9.772
Hardware - Ocean Systems C	Cost														1	1		
Recurring Cost																		
2.1.1) SC012 OS - Ocean Systems <sup>(1)</sup>	-	-	63.370	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
2.1.2) SC161 OS - East Coast USWTR	-	-	75.857	-	-	16.227	-	-	15.554	-	-	13.302	-	-	-	-	-	13.302
Subtotal: Recurring Cost	-	-	139.227	-	-	16.227	-	-	15.554	-	-	13.802	-	-	-	-	-	13.802
Subtotal: Hardware - Ocean Systems Cost	-	-	139.227	-	-	16.227	-	-	15.554	-	-	13.802	-	-	-	-	-	13.802
Hardware - Large Area Tracki	ing Range Cos	t																
Recurring Cost							1		1									1
3.1.1) SC034 LATR Shipboard Rotary Technology Upgrade (2)	-	-	-	-	-	-	-	-	2.943	-	-	0.245	-	-	-	-	-	0.245
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	2.943	-	-	0.245	-	-	-	-	-	0.245

LI 4204 - Weapons Range Support Equipment Navy

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P-1 Line #104

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Exhibit P-5, Cost														Date: Fe				
<b>Appropriation / B</b> 1810N / 03 / 3	I	<b>_ine Item</b> ∤/ Weapo				Item Number / Title [DODIC]:  1 / Weapons Range Support Equipment												
ID Code (A=Service Read	dy, B=Not Serv	ice Ready):							М	DAP/MAIS	Code:							
Note: Subtotals or Totals in	n this Exhibit	t P-5 may no	t be exact o	r sum exactl	y due to rou	nding.			'									
	F	Prior Years FY 2015						FY 2016		FY 2017 Base				Y 2017 OC	0	FY 2017 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Subtotal: Hardware - Large Area Tracking Range Cost	-	-	-	-	-	-	-	-	2.943	-	-	0.245	-	-	-	-	-	0.24
Hardware - Tactical Combat T	Fraining Syster	n Cost					,			,						,	,	
Recurring Cost																		
4.1.1) SC039 TCTS - Transportable Ground Subsystem	-	-	0.761	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.1.3) SC140 TCTS - Remote Range Unit	-	-	0.145	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.906	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Tactical Combat Training System Cost	-	-	0.906	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Electronic Warfare	e Training Equi	ipment Cost	,				,			,							,	
Recurring Cost																		
5.1.1) SC105 EW - Threat Presentation	-	-	62.667	-	-	6.596	-	-	9.598	-	-	8.371	-	-	-	-	-	8.37
Subtotal: Recurring Cost	-	-	62.667	-	-	6.596	-	-	9.598	-	-	8.371	-	-	-	-	-	8.37
Subtotal: Hardware - Electronic Warfare Training Equipment Cost	-	-	62.667	-	-	6.596	-	-	9.598	-	-	8.371	-	-	-	-	-	8.37
Hardware - Moving Land Targ	gets (PMA208)	Cost														<u>'</u>	'	
Recurring Cost																		
6.1.1) SC151 MLT - Moving Land Targets <sup>(†)</sup>	180,279.41	68	12.259	130,500.00	10	1.305	146,444.00	9	1.318	137,777.00	9	1.240	-	-	-	137,777.00	9	1.24
Subtotal: Recurring Cost	-	-	12.259	-	-	1.305	-	-	1.318	-	-	1.240	-	-	-	-	-	1.24
Subtotal: Hardware - Moving Land Targets (PMA208) Cost	-	-	12.259	-	-	1.305	-	-	1.318	-	-	1.240	-	-	-	-	-	1.24
Hardware - Live-Virtual-Const	tructive Cost															<u> </u>		
Recurring Cost																		
7.1.1) SC711 Fallon LVC <sup>(3)</sup>	-	-	-	-	-	-	-	-	-	-	-	10.520	-	-	-	-	-	10.52
Subtotal: Recurring Cost	-	-	-	-	-	-	-	-	-	-	-	10.520	-	-	-	-	-	10.52
Subtotal: Hardware - Live- Virtual-Constructive Cost	-	-	-	-	-	-	-	-	-	-	-	10.520	-	-	-	-	-	10.52
Software - SC158 TCTS Block	k Upgrade Cos	st																
Recurring Cost																		

LI 4204 - Weapons Range Support Equipment Navy

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P-1 Line #104

Volume 3 - 17

Exhibit P-5, Cost Analysis: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]:

1810N / 03 / 3 4204 / Weapons Range Support Equipment 1 / Weapons Range Support Equipment

	Prior Years			FY 2015			FY 2016			F	/ 2017 Ba	se	FY 2017 OCO			FY 2017 Total		
Cost Elements	Unit Cost	Qty (Each)	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)
8.1.1) SC158 - TCTS Block Upgrade	-	-	1.486	-	-	1.757	-	-	-	-	-	1.657	-	-	-	-	-	1.657
Subtotal: Recurring Cost	-	-	1.486	-	-	1.757	-	-	-	-	-	1.657	-	-	-	-	-	1.657
Subtotal: Software - SC158 TCTS Block Upgrade Cost	-	-	1.486	-	-	1.757	-	-	-	-	-	1.657	-	-	-	-	-	1.657
Support - Integrated Logistics	Cost																	
9.1) SC800 SRAM	-	-	1.425	-	-	0.290	-	-	0.300	-	-	0.304	-	-	-	-	-	0.304
9.2) SC800 Ocean Systems <sup>(4)</sup>	-	-	1.588	-	-	0.179	-	-	0.355	-	-	0.666	-	-	-	-	-	0.666
9.3) SC800 TCTS	-	-	1.699	-	-	0.134	-	-	-	-	-	0.144	-	-	-	-	-	0.144
9.4) SC800 EW	-	-	1.102	-	-	0.420	-	-	0.155	-	-	0.156	-	-	-	-	-	0.156
9.5) SC800 Prior Years	-	-	9.317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6) SC800 Fallon LVC	-	-	-	-	-	-	-	-	-	-	-	0.080	-	-	-	-	-	0.080
Subtotal: Support - Integrated Logistics Cost	-	-	15.131	-	-	1.023	-	-	0.810	-	-	1.350	-	-	-	-	-	1.350
Support - Production Support	Cost																	•
10.1) SC820 Ocean Systems	-	-	3.767	-	-	0.512	-	-	1.082	-	-	1.761	-	-	-	-	-	1.761
10.2) SC820 LATR	-	-	-	-	-	-	-	-	0.036	-	-	0.036	-	-	-	-	-	0.036
10.3) SC820 TCTS	-	-	0.735	-	-	0.100	-	-	-	-	-	0.233	-	-	-	-	-	0.233
10.4) SC820 EW	-	-	0.679	-	-	0.145	-	-	0.186	-	-	0.189	-	-	-	-	-	0.189
10.5) SC820 Fallon LVC	-	-	-	-	-	-	-	-	-	-	-	0.538	-	-	-	-	-	0.538
Subtotal: Support - Production Support Cost	-	-	5.181	-	-	0.757	-	-	1.304	-	-	2.757	-	-	-	-	-	2.757
Support - Production Enginee	ring Cost																	
11.1) SC831 SRAM	-	-	5.066	-	-	1.180	-	-	0.969	-	-	0.969	-	-	-	-	-	0.969
11.2) SC831 Ocean Systems <sup>(5)</sup>	-	-	16.565	-	-	3.480	-	-	3.012	-	-	2.449	-	-	-	-	-	2.449
11.3) SC831 LATR	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-
11.4) SC831 TCTS	-	-	13.949	-	-	1.826	-	-	-	-	-	1.997	-	-	-	-	-	1.997
11.5) SC831 EW	-	-	12.281	-	-	3.659	-	-	0.856	-	-	0.824	-	-	-	-	-	0.824
11.6) SC832 MLT	-	-	0.530	-	-	0.200	-	-	0.204	-	-	0.205	-	-	-	-	-	0.205
11.7) SC831 Fallon LVC (6)	-	-	-	-	-	-	-	-	-	-	-	1.072	-	-	-	-	-	1.072
11.8) SC831 Prior Years	-	-	58.652	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Engineering Cost	-	-	107.043	-	-	10.345	-	-	5.091	-	-	7.516	-	-	-	-	-	7.516

Exhibit P-5, Cost Analysis: PB 2017 Navy Date: February 2016 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Item Number / Title [DODIC]: 1 / Weapons Range Support Equipment 1810N / 03 / 3 4204 / 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.

	F	Prior Years	3		FY 2015			FY 2016		F	/ 2017 Ba	se	F	Y 2017 OC	0	F	Y 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)									
Support - Acceptance Testing	Cost																	
12.1) SC860 SRAM	-	-	1.068	-	-	0.225	-	-	0.232	-	-	0.235	-	-	-	-	-	0.235
12.2) SC860 Ocean Systems	-	-	1.034	-	-	0.422	-	-	0.491	-	-	0.300	-	-	-	-	-	0.300
12.3) SC860 LATR	-	-	-	-	-	-	-	-	0.084	-	-	0.082	-	-	-	-	-	0.082
12.5) SC860 EW	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.6) SC860 Prior Years	-	-	3.543	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7) SC860 LVC Fallon	-	-	-	-	-	-	-	-	-	-	-	0.269	-	-	-	-	-	0.269
Subtotal: Support - Acceptance Testing Cost	-	-	5.845	-	-	0.647	-	-	0.807	-	-	0.886	-	-	-	-	-	0.886
Gross/Weapon System Cost	-	-	491.449	-	-	47.944	-	-	46.979	-	-	58.116	-	-	-	-	-	58.116

<sup>(†)</sup> indicates the presence of a P-5a

### Footnotes:

- (1) Increase from PB16 reflects funds for upgrade of portable underwater training ranges as well as fixed ranges at Barking Sands, HI and San Clemente Island, CA. Upgrades include improved range accuracy and splash detection capabilities.
- (2) Procures various components for LATR Shipboard and Rotary Wing Technology Upgrade. The majority of the components will be procured in FY16, with remaining reduced procurements in FY17 per the approved acquisition plan.
- (3) SC711 Fallon LVC Increase from PB16 in FY17 reflects NSAWC prioritization of range infrastructure improvements to support LVC capability.
- (4) 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). Increased logistical efforts in FY17 include support of the validation of the Range Operation Center (ROC) interface between Jacksonville and Mayport Florida.
- (5) 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).
- (6) SC831 Fallon LVC FY17 funds engineering costs associated with procurement of ARS-1 Electronic Warfare radar equipment for the Air Defense Strike Group Facility at the Naval Strike Air Warfare Center (NSAWC), NAS Fallon,

P-1 Line #104

Exhibit P-5a, Procurement History and Planning: PB 2017 N	lavy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4204 / Weapons Range Support Equipment	1 / Weapons Range Support Equipment

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
6.1.1) SC151 MLT - Moving Land Targets		2014	Kairos / Sandy, UT	C / FFP	NAVAIR, Patuxent River, MD	Apr 2014	Aug 2014	14	129,142.86	Y		May 2010
6.1.1) SC151 MLT - Moving Land Targets		2015	Kairos / Sandy, UT	C / FFP	NAVAIR, Patuxent River, MD	Apr 2015	Aug 2015	10	130,500.00	Y		May 2010
6.1.1) SC151 MLT - Moving Land Targets		2016	TBD / TBD	C / FFP	NAVAIR, Patuxent River, MD	Apr 2016	Jun 2016	9	146,444.00	Y		Aug 2015
6.1.1) SC151 MLT - Moving Land Targets		2017	TBD / TBD	C / FFP	NAVAIR, Patuxent River, MD	Apr 2017	Jul 2017	9	137,777.00	Y		Aug 2015

Exhibit P-40, Budget Line Item Justification: PB 2017 Navv

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4213 / Aircraft Support Equipment

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	Item MD	AP/MAIS Cod	e(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	55.195	123.884	120.324	-	120.324	122.313	124.721	130.847	127.045	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	55.195	123.884	120.324	-	120.324	122.313	124.721	130.847	127.045	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	55.195	123.884	120.324	-	120.324	122.313	124.721	130.847	127.045	Continuing	Continuing
(The following	g Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	d elsewhere.)	•			
Initial Spares (\$ in Millions)	-	13.411	9.251	3.329	-	3.329	2.947	0.974	0.089	0.091	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 sing and analysis equipment, and miscellaneous other categories of 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. 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 reliablity, availability and maintainability of ALRE equipment.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy	,		Date: February 2016	
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 03: Aviation Support Ed Aircraft Support Equipment	quipment / BSA 3:	P-1 Line Item Num 4213 / Aircraft Supp		
ID Code (A=Service Ready, B=Not Service Ready): B	am Elements for Code B I	tems: 0204112N	Other Related Program Elements: 0604512N	
Line Item MDAP/MAIS Code: N/A Item MDAP/MAIS Code(s): N				
Engineering Change Proposals (ECPs) are generated and processed via a C aboard applicable ships as well as shore-based installations in the ECP. Maj centers voyage repair teams during routine or restricted availabilities of the valimprovements in reliability, availability and maintainability.	or shipboard equipment ite	ms are generally installed b	y shipyard personnel, alteration installation teams or fleet re	adiness
FY14 and prior years funded under Aircraft Support Equipment (BLI 4216).				
[P3A - 4 / LAMPS MK III - SRQ(KU)-4 (S1010)]: LAMPS MK III is a over the from MH-60 helicopters to surface ships (cruisers and destroyers) to enable of the surface ships (surface) and surface ships (surface) and surface ships (surface) and surface ships (surface) and surface) are surfaced by the surface ships (surface) and surface ships (surface) and surface ships (surface) and surface) are surfaced by the surface ships (surface) and surface ships (surface) and surface) are surfaced by the surface ships (surface) and surface) are surfaced by the surface ships (surface) and surface) are surfaced by the surface ships (surface) and surfaced by the surface ships (surface) and surface) are surfaced by the surface ships (surface) and surface) are surfaced by the surface ships (surface) and surfaced by the surface) are surfaced by the surface ships (surface) and surfaced by the surface ships (surface) and surfaced by the surfaced by the surface ships (surface) and surfaced by the s				nce and other data

LI 4213 - Aircraft Support Equipment Navy

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4213 / Aircraft Support Equipment

Aircraft Support Equipment

Program Elements for Code B Items: 0204112N

Other Related Program Elements: 0604512N

Line Item MDAP/MAIS Code: N/A

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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)				
P-5	1 / Expeditionary Airfields	P-5a		- / 0.000	- /7.423	- / 8.425	- /7.984	- / -	- / 7.984
P-5	2 / Acft Rearming Equip	P-5a, P-21		- / 0.000	- / 11.836	- / 11.857	- / 11.251	- / -	- / 11.251
P-5	3 / Air Launch & Recovery Equip			- / 0.000	- / 9.200	- / 33.675	- / 44.951	- / -	- / 44.951
P-3a	1 / ALRE - Advanced Arresting Gear (SJ301) (Advanced Arresting Gear (SJ301))			- /0.000	- /3.685	- / 5.655	- /2.234	- 1 -	- /2.234
P-3a	2 / ALRE - ADMACS Block Upgrade (SJ302) (Increase Capability)			- / 0.000	- / 9.079	- /44.313	- / 33.937	- / -	- / 33.937
P-3a	3 / ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306) (Reliability and Maintainability)			- /0.000	- / -	- / -	- / 1.057	- / -	- / 1.057
P-3a	4 / LAMPS MK III - SRQ(KU)-4 (S1010) (Non-Organic)			- / 0.000	- / 13.972	- / 19.959	- / 18.910	- / -	- / 18.910
P-40	Total Gross/Weapon System Cost			- / 0.000	- / 55.195	- / 123.884	- / 120.324	- 1 -	- / 120.324
	Exhibits Schedule			FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit									
Туре	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)				
	Title*  1 / Expeditionary Airfields	Subexhibits P-5a							
Туре				(Each) I (\$ M)	(Each) I (\$ M)				
Type P-5	1 / Expeditionary Airfields	P-5a		(Each) I (\$ M)	(Each) I (\$ M)				
P-5 P-5	1 / Expeditionary Airfields 2 / Acft Rearming Equip	P-5a		(Each) I (\$ M) - / - - / -	(Each) I (\$ M) - / / -	(Each) I (\$ M) - / / -	(Each) I (\$ M)	(Each) I (\$ M) - / - - / -	(Each) I (\$ M) - / - - / -
P-5 P-5 P-5	1 / Expeditionary Airfields 2 / Acft Rearming Equip 3 / Air Launch & Recovery Equip 1 / ALRE - Advanced Arresting Gear (SJ301) (Advanced Arresting Gear	P-5a		(Each) I (\$ M) -	(Each) I (\$ M) -	(Each) I (\$ M)	(Each) I (\$ M) -	(Each) I (\$ M) -	(Each) I (\$ M)
P-5 P-5 P-5 P-5 P-3a	1 / Expeditionary Airfields 2 / Acft Rearming Equip 3 / Air Launch & Recovery Equip 1 / ALRE - Advanced Arresting Gear (SJ301) (Advanced Arresting Gear (SJ301))	P-5a		(Each) I (\$ M) -	(Each) I (\$ M) - / / / / - Continuing	(Each) I (\$ M) - / / / / - Continuing			
P-5 P-5 P-5 P-7 P-3a	1 / Expeditionary Airfields 2 / Acft Rearming Equip 3 / Air Launch & Recovery Equip 1 / ALRE - Advanced Arresting Gear (SJ301) (Advanced Arresting Gear (SJ301)) 2 / ALRE - ADMACS Block Upgrade (SJ302) (Increase Capability) 3 / ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)	P-5a		(Each) I (\$ M)  -	(Each) I (\$ M) -	(Each) I (\$ M)  -	(Each) I (\$ M)  -	(Each) I (\$ M)  - / -  - / -  - / -  Continuing  Continuing	(Each) I (\$ M)  - / -  - / -  - / -  Continuing  Continuing

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

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

Expeditionary Airfields (EAF) - FY 2017 baseline funding is required for EAF Surfacing equipment, EAF Lighting Equipment, EAF Arresting Gear, associated ECPs and support.

Aircraft Rearming Equipment - FY 2017 baseline funding is required for USMC A/M32K-4A Munitions Trailer Replacement, MHU-191/M CILOP, and associated support costs.

Aircraft Launch and Recovery Equipment (ALRE) - FY 2017 baseline funding is required for ALRE equipment, Advanced Arresting Gear (AAG), Aviation Data Management and Control System (ADMACS) Block Upgrade, and associated support.

LAMPS MK III Shipboard Equipment - The FY 2017 baseline funding is required for the procurement of 5 AN/SRQ-4(Ku) field install kits and associated support and installation costs to meet the MH-60R deployment schedule.

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Exhibit P-5, Cost Analysis: PB 2017 Navy Date: February 2016 Appropriation / Budget Activity / Budget Sub Activity: Item Number / Title [DODIC]: P-1 Line Item Number / Title: 1810N / 03 / 3 4213 / Aircraft Support Equipment 1 / Expeditionary Airfields ID Code (A=Service Ready, B=Not Service Ready): MDAP/MAIS Code: **FY 2017 Base FY 2017 OCO** FY 2017 Total **Prior Years** FY 2015 FY 2016 Resource Summary Procurement Quantity (Units in Each) Gross/Weapon System Cost (\$ in Millions) 0.000 7.423 8.425 7.984 7.984 Less PY Advance Procurement (\$ in Millions) Net Procurement (P-1) (\$ in Millions) 0.000 7.423 8.425 7.984 7.984 \_ Plus CY Advance Procurement (\$ in Millions) \_ Total Obligation Authority (\$ in Millions) 0.000 7.423 8.425 7.984 7.984 (The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.) Initial Spares (\$ in Millions) \_ Gross/Weapon System Unit Cost (\$ in Dollars) \_ \_ Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. **Prior Years** FY 2015 **FY 2016 FY 2017 Base FY 2017 OCO** FY 2017 Total Total Total Total Total Total Total **Unit Cost Unit Cost Unit Cost Unit Cost** Qty Cost **Unit Cost** Qty Cost Qty Cost **Unit Cost** Qty Cost Qty Qty Cost Cost Cost Elements (Each) (\$ M) (Each) (Each) (\$ M) (Each) (\$ M) (Each) (Each) (\$ M) (\$) (\$) (\$ M) (\$) (\$) (\$) (\$ M) (\$) Hardware - (SE010) EAF Surfacing Equipment Cost Recurring Cost 1.1.1) AM-2-Matting 32 0.000 7,162.00 27 7,162.00 32 7,162.00 7,162.00 0.193 0.229 32 0.229 0.229  $(F72)^{(\dagger)}$ 1.1.2) AM-2 Matting 0.000 9.495.00 0.009 9.495.00 2 0.019 9.495.00 2 0.019 9.495.00 2 0.019  $(F73)^{(\dagger)}$ 1.1.3) AM-2 Matting 48 0.000 11.375.00 42 0.478 11.375.00 55 0.626 11.375.00 48 0.546 11.375.00 0.546 (F71)<sup>(†)</sup> (1) 1.1.7) AM-2 Accessory 0.000 0.386 0.307 0.307 0.307 Packs (1) (2) 1.1.8) Surfacing engineering change 0.000 1.852 2.003 2.196 2.196 proposals (3) Subtotal: Recurring Cost 0.000 2.918 3.184 3.297 3.297 Subtotal: Hardware -(SE010) EAF Surfacing 2.918 3.184 3.297 3.297 Equipment Cost

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Recurring Cost
2.1.1) EAF Surfacing

Subtotal: Hardware -

Equipment (4)

Subtotal: Recurring Cost

(SE860) Acceptance Testing

Hardware - (SE860) Acceptance Testing and Evaluation - Surfacing Cost

0.000

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Exhibit P-5, Cost Analysis: PB 2017 Navy Date: February 2016 Appropriation / Budget Activity / Budget Sub Activity: Item Number / Title [DODIC]: P-1 Line Item Number / Title: 1810N / 03 / 3 4213 / Aircraft Support Equipment 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. FY 2015 FY 2016 **FY 2017 Base FY 2017 OCO** FY 2017 Total **Prior Years** Total Total Total Total Total Total **Unit Cost Unit Cost Unit Cost** Qtv Cost Qtv Cost **Unit Cost** Qtv Cost Qtv Cost **Unit Cost** Qtv Cost **Unit Cost** Qtv Cost **Cost Elements** (Each) (\$) (Each) (\$ M) (\$) (\$ M) and Evaluation - Surfacing Cost Hardware - (SE010) EAF Lighting Equipment Cost Recurring Cost 3.1.1) Man Portable 0.000 0.540 0.822 0.338 0.338 Lights (5) 3.1.2) Lighting Engineering Change 0.000 1.250 1.674 2.118 2.118 Proposals (6) Subtotal: Recurring Cost 0.000 1.790 2.496 2.456 2.456 Subtotal: Hardware -(SE010) EAF Lighting 0.000 1.790 2.496 2.456 2.456 Equipment Cost Hardware - Acceptance Testing - Lighting Cost Recurring Cost 4.1.1) EAF Lighting 0.000 0.390 0.892 0.020 0.020 Equipment (7) Subtotal: Recurring Cost 0.000 0.390 0.892 0.020 0.020 Subtotal: Hardware -Acceptance Testing -0.000 0.390 0.892 0.020 0.020 Lighting Cost Hardware - (SE0210) EAF Arresting Gear Cost Recurring Cost 5.1.2) M-31 Engineering Change 0.263 0.000 0.412 0.249 0.249 Proposals (8) Subtotal: Recurring Cost 0.000 0.412 0.263 0.249 0.249 Subtotal: Hardware -(SE0210) EAF Arresting 0.000 0.412 0.263 0.249 0.249 Gear Cost Hardware - Acceptance Testing - Arresting Gear Cost Recurring Cost 6.1.1) EAF Arresting 0.000 0.314 0.021 0.029 0.029 Gear Subtotal: Recurring Cost 0.000 \_ 0.314 0.021 0.029 \_ 0.029 Subtotal: Hardware -0.000 0.314 0.021 0.029 0.029 Acceptance Testing -Arresting Gear Cost Support - (SE800) Integrated Logistics Cost

LI 4213 - Aircraft Support Equipment Navy

Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4213 / Aircraft Support Equipment	1 / Expeditionary Airfields

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

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

MDAP/MAIS Code:

	F	Prior Years	5		FY 2015			FY 2016		F	Y 2017 Ba	se	F`	/ 2017 OC	0	F	<b>Y 2017 To</b> 1	tal
Cost Elements	Unit Cost	Qty (Each)	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	<b>Qty</b> (Each)	Total Cost (\$ M)
7.1) EAF Surfacing Equipment	-	-	0.000	-	-	0.510	-	-	0.529	-	-	0.477	-	-	-	-	-	0.477
7.2) EAF Lighting Equipment	-	-	0.000	-	-	0.087	-	-	0.099	-	-	0.041	-	-	-	-	-	0.04
7.3) EAF Arresting Gear	-	-	0.000	-	-	0.161	-	-	0.040	-	-	0.035	-	-	-	-	-	0.035
Subtotal: Support - (SE800) Integrated Logistics Cost	-	-	0.000	-	-	0.758	-	-	0.668	-	-	0.553	-	-	-	-	-	0.553
Support - (SE830) Production	Engineering C	Cost																
8.1) EAF Surfacing Equipment	-	-	0.000	-	-	0.310	-	-	0.377	-	-	0.480	-	-	-	-	-	0.480
8.2) EAF Lighting Equipment	-	-	0.000	-	-	0.145	-	-	0.120	-	-	0.107	-	-	-	-	-	0.107
8.3) EAF Arresting Gear	-	-	0.000	-	-	0.230	-	-	0.090	-	-	0.081	-	-	-	-	-	0.08
Subtotal: Support - (SE830) Production Engineering Cost	-	-	0.000	-	-	0.685	-	-	0.587	-	-	0.668	-	-	-	-	-	0.668
Gross/Weapon System Cost	-	-	0.000	-	-	7.423	-	-	8.425	-	-	7.984	-	-	-	-	-	7.984

### 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.

PE and ILS costs updated to reflect NWCF Rates Adjustment FY17-21.

### Footnotes:

- (1) FY15 FY17 AM2 Matting (cost elements 1.1.1 1.1.3) unit cost change based on renewal of EAF awarded procurement contract. 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. FY15 - FY17 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.
- (2) AM-2 Accessory Packs (1.1.7) and 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.
- (3) Surfacing Engineering Change Proposals (1.1.8) 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. The increase in FY16 to FY17 is to support Surfacing ECPs and the associated engineering support.
- (4) 2.1.1 The increase between FY16 and FY17 is driven by the Acceptance Testing required to support multiple Surfacing ECPs.

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3		Item Number / Title [DODIC]: 1 / Expeditionary Airfields
ID Code (A=Service Ready, B=Not Service Ready):	MDAP/MAIS Code:	

- (5) 3.1.1 -The increase from FY15 to FY16 reflects the current HQ Marine Corps requirement of Man Portable Lights based on fleet safety concerns and readiness.
- (6) 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.
- (7) 4.1.1 The increase in FY15 to FY16 is driven by the Acceptance Testing required to support multiple Lighting ECPs.
- (8) M-31 Engineering Change Proposals (5.1.2) address failures and obsolescence issues associated with the M-31, which focuses on component failures that require compatibility efforts and retrofit designs to reduce safety hazards on multiple land surfaces.

LI 4213 - Aircraft Support Equipment Navy

Exhibit P-5a, Procurement History and Planning: PB 2017 N	lavy	Date: February 2016
1 1 3 1 3 1 3 1 3	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4213 / Aircraft Support Equipment	1 / Expeditionary Airfields

0 0	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
	2015	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2015	May 2015	27	7,162.00	Y		Sep 2011
	2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	32	7,162.00	Y		Sep 2011
	2015	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2015	May 2015	1	9,495.00	Y		Sep 2011
	2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	2	9,495.00	Y		Sep 2011
	2015	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2015	May 2015	42	11,375.00	Y		Sep 2011
	2016	ALFAB / Montgomery, AL	C / FFP	LKE	Feb 2016	May 2016	55	11,375.00	Υ		Sep 2011
	-	O FY 2015 2016 2015 2016 2016 2015	O FY Contractor and Location  2015 ALFAB / Montgomery, AL  2016 ALFAB / Montgomery, AL  2015 ALFAB / Montgomery, AL  2016 ALFAB / Montgomery, AL  2015 ALFAB / Montgomery, AL	C O FY Contractor and Location Funding Vehicle  2015 ALFAB / Montgomery, AL C / FFP  2016 ALFAB / Montgomery, AL C / FFP  2015 ALFAB / Montgomery, AL C / FFP  2016 ALFAB / Montgomery, AL C / FFP  2015 ALFAB / Montgomery, AL C / FFP  2015 ALFAB / Montgomery, AL C / FFP	C O FY Contractor and Location Funding Vehicle Location of PCO  2015 ALFAB / Montgomery, AL C / FFP LKE  2016 ALFAB / Montgomery, AL C / FFP LKE  2015 ALFAB / Montgomery, AL C / FFP LKE  2016 ALFAB / Montgomery, AL C / FFP LKE  2016 ALFAB / Montgomery, AL C / FFP LKE  2015 ALFAB / Montgomery, AL C / FFP LKE	C O FY Contractor and Location Funding Vehicle Location of PCO Date  2015 ALFAB / Montgomery, AL C / FFP LKE Feb 2015  2016 ALFAB / Montgomery, AL C / FFP LKE Feb 2016  2015 ALFAB / Montgomery, AL C / FFP LKE Feb 2015  2016 ALFAB / Montgomery, AL C / FFP LKE Feb 2016  2015 ALFAB / Montgomery, AL C / FFP LKE Feb 2016  2015 ALFAB / Montgomery, AL C / FFP LKE Feb 2016	C OFYContractor and Locationor Funding VehicleLocation of PCOAward Dateof First Delivery2015ALFAB / Montgomery, ALC / FFPLKEFeb 2015May 20152016ALFAB / Montgomery, ALC / FFPLKEFeb 2016May 20162015ALFAB / Montgomery, ALC / FFPLKEFeb 2015May 20152016ALFAB / Montgomery, ALC / FFPLKEFeb 2016May 20162015ALFAB / Montgomery, ALC / FFPLKEFeb 2016May 20162015ALFAB / Montgomery, ALC / FFPLKEFeb 2015May 2015	C O         FY         Contractor and Location         or Funding Vehicle         Location of PCO         Award Date         Of First Delivery         Qty (Each)           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         27           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         32           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         1           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         4	C O FY         Contractor and Location         or Funding Vehicle         Location of PCO         Award Date         Of First Delivery         Qty (Each)         Unit Cost (S)           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         27         7,162.00           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         32         7,162.00           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         1         9,495.00           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2016         2         9,495.00           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         42         11,375.00	C O FY         Contractor and Location         or Funding Vehicle         Location of PCO         Award Date         of First Delivery         Qty (Each)         Unit Cost (%)         Avail Now?           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         27         7,162.00         Y           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         32         7,162.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         1         9,495.00         Y           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00         Y	C O FY         Contractor and Location         or Funding Vehicle         Location of PCO         Award Date         Of First Delivery         Qty (Each)         Unit Cost (%)         Avail Now?         Revision Available           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         27         7,162.00         Y           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         32         7,162.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2015         1         9,495.00         Y           2016         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2016         May 2016         2         9,495.00         Y           2015         ALFAB / Montgomery, AL         C / FFP         LKE         Feb 2015         May 2016         2         9,495.00         Y

							•	NOLAS	O	•								
Exhibit P-5, Cost	Analysis	: PB 20	17 Navy	,										Date: F	ebruary 2	2016		
<b>Appropriation / B</b> 1810N / 03 / 3	udget Ac	tivity /	Budget	Sub Act	ivity:			n Numbe ft Suppor							umber / 1 : Rearmin		DIC]:	
ID Code (A=Service Read	dy, B=Not Servic	e Ready):							MI	DAP/MAIS	Code:							
	Resource		arv			Prior Yea	ars	FY 20	015	FY	2016	FY 2	2017 Ba	se l	FY 2017 (	осо	FY 2017	' Total
Procurement Quantity (Uni							-		-		-			-		-		-
Gross/Weapon System Co		)					0.000		11.836		11.85	7	1	1.251		-		11.251
Less PY Advance Procure	ement (\$ in Millio	ons)					-		-		-			-		-		-
Net Procurement (P-1) (\$ i	in Millions)						0.000		11.836		11.85	7	1	1.251		-		11.25
Plus CY Advance Procure	ment (\$ in Millio	ons)					-		-		-			-		-		-
Total Obligation Authorit	t <b>y</b> (\$ in Millions)						0.000		11.836		11.85	7	1	1.251		-		11.25
(TI	he following R	esource S	ummary row	s are for info	rmational p	urposes only	v. The corres	sponding bud	lget request	s are docume	ented elsewh	ere.)						
Initial Spares (\$ in Millions)							-		-		-			-		-		-
Gross/Weapon System Ur	nit Cost (\$ in Do	ollars)					-		-		-			-		-		-
Note: Subtotals or Totals i	n this Exhibit F	P-5 may no	ot be exact o	r sum exactl	v due to ro	undina.												
	_	rior Years			FY 2015			FY 2016		FY	2017 Bas	<u> </u>	F	Y 2017 O	CO	F	Y 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost	Unit Cost	Qty (Each)	Total Cost
Hardware - HARDWARE - Or		` ′	(\$ 11.7)	(Φ)	(Eddin)	(\$10)	(Φ)	(Edon)	(\$ 11.7)	(6)	(Eddin)	(\$ 111)	(\$)	(Luon)	(\$ 111)	(Ψ)	(Eddin)	(\$ 11.7)
Recurring Cost		,																
1.1.1) SH042 - USMC WEAPONS ASSEMBLY STATION (A/E32K-11 LIFTING ASSLY) <sup>(†) (9)</sup>	-	-	0.000	264,075.00	3	0.792	264,075.00	6	1.584	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.000	-	-	0.792	-	-	1.584	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - HARDWARE - Ordnance Assembly Cost	-	-	0.000	-	-	0.792	-	-	1.584	-	-	-	-	-	-	-	-	-
Hardware - HARDWARE - Or	dnance Transpo	rt Cost	<u>'</u>								<u> </u>					<u>'</u>		
Recurring Cost																		
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/M32K-10 MUN TRLR) <sup>(†)</sup>	-	-	0.000	56,118.40	107	6.005	61,147.37	95	5.809	61,147.37	109	6.665	-	-	-	61,147.37	109	6.66
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER <sup>(†)</sup>	-	-	0.000	6,000.00	193	1.158	6,120.00	174	1.065	6,242.40	441	2.753	-	-	-	6,242.40	441	2.75
Subtotal: Recurring Cost	-	-	0.000	-	-	7.163	-	-	6.874	-	-	9.418	-	-	-	-	-	9.41
Subtotal: Hardware - HARDWARE - Ordnance Transport Cost	-	-	0.000	-	-	7.163	-	-	6.874	-	-	9.418	-	-	-	-	-	9.41

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P-1 Line #105

Exhibit P-5, Cost Analysis: PB 2017 Navy Date: February 2016 Appropriation / Budget Activity / Budget Sub Activity: Item Number / Title [DODIC]: P-1 Line Item Number / Title: 1810N / 03 / 3 4213 / Aircraft Support Equipment 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. FY 2015 FY 2016 **FY 2017 Base FY 2017 OCO** FY 2017 Total **Prior Years** Total Total Total Total Total Total **Unit Cost Unit Cost** Qtv Cost Qtv Cost **Unit Cost** Qtv Cost **Unit Cost** Qtv Cost **Unit Cost** Qtv Cost **Unit Cost** Qtv Cost **Cost Elements** (\$) (Each) (\$ M) Hardware - HARDWARE - Ordnance Loading Cost Recurring Cost 3.1.2) SH046 -USMC A/S32K-1E 0.000 647,000.00 1.294 2 WEAPONS LOADER REPLACEMENT<sup>(†)</sup> Subtotal: Recurring Cost 0.000 1.294 Subtotal: Hardware -HARDWARE - Ordnance 0.000 1.294 Loading Cost Hardware - SH920 NON-RECURRING Cost Non Recurring Cost 4.1.3) Ordnance 0.000 0.394 Loading Subtotal: Non Recurring 0.000 0.394 Cost Subtotal: Hardware - SH920 0.000 0.394 NON-RECURRING Cost Hardware - SH010 ECP Cost Recurring Cost 5.1.2) Ordnance 0.000 1.718 0.057 0.112 0.112 Transport ECP (10) 5.1.3) Ordnance 0.000 0.050 0.059 0.112 0.112 Loading ECP Subtotal: Recurring Cost 0.000 1.768 0.116 0.224 -0.224 Subtotal: Hardware - SH010 0.000 1.768 0.116 0.224 0.224 ECP Cost Hardware - SH860 Acceptance Test & Eval Cost Recurring Cost 6.1.1) Ordnance Assembly Acceptance 0.000 0.105 0.066 Testina 6.1.2) Ordnance 0.000 0.174 0.120 0.215 0.215 Transport Acceptance Testing

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0.206

0.485

0.165

0.351

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0.000

0.000

6.1.3) Ordnance

Testing Subtotal: Recurring Cost

Loading Acceptance

0.284

0.499

0.284

0.499

Exhibit P-5, Cost Analysis: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:
1810N / 03 / 3

Date: February 2016

Item Number / Title [DODIC]:
4213 / Aircraft Support Equipment
2 / Acft Rearming Equip

MDAP/MAIS Code:

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

0.000

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding. FY 2015 FY 2016 **FY 2017 Base FY 2017 OCO** FY 2017 Total **Prior Years** Total Total Total Total Total Total **Unit Cost Unit Cost Unit Cost** Qtv Cost **Unit Cost** Qtv Cost Qtv Cost Qtv Cost **Unit Cost** Qtv Cost **Unit Cost** Qtv Cost **Cost Elements** (Each) (\$) (Each) (\$ M) (\$) (\$ M) Subtotal: Hardware - SH860 Acceptance Test & Eval 0.000 0.485 0.351 0.499 0.499 Cost Support - SH800 ILS Cost 7.1) Ordnance Assembly 0.000 0.096 0.090 7.2) Ordnance Transport 0.000 0.124 -0.238 -0.199 0.199 7.3) Ordnance Loading 0.000 0.207 0.296 0.379 0.379 Subtotal: Support - SH800 0.000 0.427 0.624 0.578 ILS Cost Support - SH830 Production Engineering Cost 8.1) Ordnance Assembly 0.000 0.392 0.173 PE 8.2) Ordnance Transport 0.000 0.193 0.197 0.271 0.271 PΕ 8.3) Ordnance Loading 0.000 0.616 0.250 0.261 0.261 PΕ Subtotal: Support - SH830 0.000 0.620 0.532 0.532 1.201 Production Engineering Cost

11.857

### Footnotes:

Gross/Weapon System

11.836

11.251

11.251

<sup>(†)</sup> indicates the presence of a P-5a

<sup>(9) (</sup>SH042) USMC WEAPONS ASSEMBLY STATION FY16 quantity increased from four to six with no cost growth due to an economy of scale buy.

<sup>(10) (</sup>SH010) Ordnance Transport ECP funding increase in FY15 due to purchasing factory production line ECP upgrade kits for A/M32K-10 Munitions Trailers to address emergent brake system and hardware corrosion issues.

Exhibit P-5a, Procurement History and Planning: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4213 / Aircraft Support Equipment

2 / Acft Rearming Equip

					-					- 3 - 4		
Cost Elements	0 0	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 (11)	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Jul 2016	Mar 2017	3	264,075.00	Y		Mar 2010
1.1.1) SH042 - USMC WEAPONS ASSEMBLY STATION (A/E32K-11 LIFTING ASSLY)		2016	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Jul 2016	Nov 2016	6	264,075.00	Y		Mar 2010
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/ M32K-10 MUN TRLR) <sup>(†)</sup>		2015	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Dec 2014	Aug 2015	107	56,118.40	Y		Nov 2010
2.1.1) SH036 - USMC A/M32K-4A MUN TRLR REPLACEMENT - (A/ M32K-10 MUN TRLR) <sup>(†)</sup>		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) <sup>(†)</sup>		2017	CAROLINA GROWLER / STAR, NC	C / FFP	NAWCADLKE	Dec 2016	Aug 2017	109	61,147.37	Y		Nov 2010
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER		2015 (12)	DEVAL CORPORATION  / PHILADELPHIA, PA	C / FFP	NAWCADLKE	Apr 2015	Dec 2015	193	6,000.00	Y		Jun 2011
2.1.2) SH043 - MHU-191/M CILOP - MHU-191A/M MUN TRANSPORTER		2016	DEVAL CORPORATION / PHILADELPHIA, PA	C / FFP	NAWCADLKE	Jan 2016	Sep 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
3.1.2) SH046 - USMC A/ S32K-1E WEAPONS LOADER REPLACEMENT		2016	TBD / TBD	C / FFP	NAWCADLKE	Jan 2016	Jul 2016	2	647,000.00	N	Jan 2016	Jun 2015

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

### Footnotes:

<sup>(11)</sup> Award date moved to July of FY16 due to the acquisition strategy for the production units being revised to reflect awarding a contract using the updated Technical Data Package (TDP) to resolve Discrepancies Reports (DRs) with previous units.

<sup>(12)</sup> Award date moved to April of FY15 due to acquisition strategy change for the procurement of MHU-191 A/M component parts, brake cable assembly, and wheel assembly.

Exh	nib	it P	P-21, Pro	oduct	ion Sc	hedu	le: P	3 201	7 Nav	/y														Date	: Feb	oruary	/ 2016	3			
			iation / 03 / 3	Budge	et Acti	vity /	Bud	get Sı	ıb Ac	tivity	•		<b>Line</b> 13 / Ai		-												Title	[DOI	OIC]:		
				lements in Each)								Fiscal Y	ear 2015											Fiscal Y	ear 2016	1					В
					ACCEPT										Calendar	Year 20	15								Caler	ndar Yea	r 2016				L
O F	•	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	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	A N C E
2.1.1	) SH	1036 -	USMC A/M3	32K-4A MI	JN TRLR F	REPLACE	MENT -	(A/M32K-	10 MUN	TRLR)																,					
1	20	2015	NAVY	107	-	107			Α -	-	-	-	-	-	-	-	3	8	9	10	11	11	11	11	9	8	8	8			-
1	1 20	2016	NAVY	95	-	95															Α -	-	-	-	-	-	-	-	3	7	85
1	1 20	2017	NAVY	109	-	109																									109
							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	

Appropriation / Budget Activity / Budget Sub Activity:  1810N / 03 / 3    P-1 Line Item Number / Title:   4213 / Aircraft Support Equipment
Column   Fiscal Year 2017   Fiscal Year 2018   Fi
0
0 F V SERVICE
1   2015   NAVY   107   107   -
1     2016     NAVY     95     10     85     8     9     10     10     10     9     8     7     7     7       1     2017     NAVY     109     -     109     -     <
1 2017 NAVY 109 - 109
O N D J F M A M J J A S O N D J F M A M J
C         O         E         A         E         A         P         A         U         U         U         E         C         O         E         A         E         A         P         A         U           T         V         C         N         B         R         R         Y         N         L         G         P         T         V         C         N         B         R         R         Y         N

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4213 / Aircraft Support Equipment	2 / Acft Rearming Equip

		Produc	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFI	R					Init	tial			Reo	rder	
Re		MSR For 2017	1-8-5 For 2017	MAX For 2017	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 CAROLINA GROWLER - STAR, NC	38	152	305	-	2	18	20	-	2	8	10

<sup>&</sup>quot;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 999,999,999 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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P-1 Line #105

Exhibit P-5, Cost Analysis: PB 2017 Navy			Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Ti 4213 / Aircraft Support Equ		Item Number / Title [DODIC]: 3 / Air Launch & Recovery Equip
ID Code (A=Service Ready, B=Not Service Ready):		MDAP/MAIS Code:	

ID Code (A=Service Ready, B=Not Service Ready):		MD	AP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	9.200	33.675	44.951	-	44.951
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	9.200	33.675	44.951	-	44.951
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	9.200	33.675	44.951	-	44.951
(The following Resource Summary rows are for informa	ational purposes only. The corr	responding budget requests	are documented elsewher	e.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Grass Magnon System Unit Cost (5 in Dallars)						

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	P	rior Years	;		FY 2015			FY 2016		F۱	2017 Ba	se	FY	2017 OC	0	FY	2017 Tot	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	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 C	Change Kits Cos	it											'		·	'		
Recurring Cost																		_
1.1.1) Information Systems (SJ040) <sup>(13)</sup>	-	-	0.000	-	-	0.205	-	-	1.492	-	-	3.807	-	-	-	-	-	3.8
1.1.2) Visual Landing Aids (SJ040) <sup>(14)</sup>	-	-	0.000	-	-	0.537	-	-	6.983	-	-	7.256	-	-	-	-	-	7.2
1.1.3) Launcher (SJ040) <sup>(15)</sup>	-	-	0.000	-	-	-	-	-	0.065	-	-	1.853	-	-	-	-	-	1.8
1.1.4) Recovery (SJ040) <sup>(16)</sup>	-	-	0.000	-	-	0.215	-	-	0.752	-	-	3.759	-	-	-	-	-	3.7
Subtotal: Recurring Cost	-	-	0.000	-	-	0.957	-	-	9.292	-	-	16.675	-	-	-	-	-	16.6
Subtotal: Hardware - SJ040 - Service Change Kits Cost	-	-	0.000	-	-	0.957	-	-	9.292	-	-	16.675	-	-	-	-	-	16.6
Hardware SJ305 - Non-Re	curring Enginee	ring Cost																
Non Recurring Cost																		
2.1.1) Information Systems - NRE	-	-	0.000	-	-	2.509	-	-	4.641	-	-	4.497	-	-	-	-	-	4.4
2.1.2) Visual Landing Aids <sup>(17)</sup>	-	-	0.000	-	-	-	-	-	4.721	-	-	5.525	-	-	-	-	-	5.5
2.1.3) Launcher	-	-	0.000	-	-	-	-	-	1.656	-	-	1.047	-	-	-	-	-	1.0
2.1.4) Recovery <sup>(18)</sup>	-	-	0.000	-	-	-	-	-	2.964	-	-	7.158	-	-	-	-	-	7.1
Subtotal: Non Recurring Cost	-	-	0.000	-	-	2.509	-	-	13.982	-	-	18.227	-	-	-	-	-	18.2

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Exhibit P-5, Cost Analysis: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:P-1 Line Item Number / Title:Item Number / Title [DODIC]:1810N / 03 / 34213 / Aircraft Support Equipment3 / 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.

	F	Prior Years	S		FY 2015			FY 2016		F١	/ 2017 Ba	se	FΥ	2017 OC	0	FY	2017 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Subtotal: Hardware SJ305 - Non-Recurring Engineering Cost	-	-	0.000	-	-	2.509	-	-	13.982	-	-	18.227	-	-	-	-	-	18.22
Support - SJ800 - Integrated I	Logistics Cost																	
3.1) Information Systems	-	-	0.000	-	-	0.276	-	-	0.316	-	-	0.297	-	-	-	-	-	0.297
3.2) Visual Landing Aids	-	-	0.000	-	-	0.279	-	-	0.418	-	-	0.333	-	-	-	-	-	0.333
3.3) Launcher	-	-	0.000	-	-	0.294	-	-	0.081	-	-	0.220	-	-	-	-	-	0.220
3.4) Recovery	-	-	0.000	-	-	0.487	-	-	0.761	-	-	0.647	-	-	-	-	-	0.647
Subtotal: Support - SJ800 - Integrated Logistics Cost	-	-	0.000	-	-	1.336	-	-	1.576	-	-	1.497	-	-	-	-	-	1.497
Support - SJ830 - Production	Engineering C	ost																
4.1) Information Systems	-	-	0.000	-	-	0.829	-	-	0.784	-	-	1.029	-	-	-	-	-	1.029
4.2) Visual Landing Aids	-	-	0.000	-	-	0.990	-	-	1.722	-	-	1.094	-	-	-	-	-	1.094
4.3) Launcher	-	-	0.000	-	-	0.493	-	-	0.316	-	-	0.335	-	-	-	-	-	0.335
4.4) Recovery	-	-	0.000	-	-	1.240	-	-	1.076	-	-	1.152	-	-	-	-	-	1.152
Subtotal: Support - SJ830 - Production Engineering Cost	-	-	0.000	-	-	3.552	-	-	3.898	-	-	3.610	-	-	-	-	-	3.610
Support - SJ900 - Installation	-NonFMP Cos	t				,								,				
5.1) Information Systems	-	-	0.000	-	-	-	-	-	0.485	-	-	0.235	-	-	-	-	-	0.235
5.2) Visual Landing Aids	-	-	0.000	-	-	-	-	-	-	-	-	0.457	-	-	-	-	-	0.457
5.4) Recovery	-	-	0.000	-	-	-	-	-	0.017	-	-	-	-	-	-	-	-	-
Subtotal: Support - SJ900 - Installation -NonFMP Cost	-	-	0.000	-	-	-	-		0.502	-	-	0.692	-		-	-	-	0.692
Support - SJ910 - Installation	-FMP Cost																	
6.1) Information Systems	-	-	0.000	-	-	0.470	-	-	0.808	-	-	1.147	-	-	-	-	-	1.147
6.2) Visual Landing Aids	-	-	0.000	-	-	0.210	-	-	1.327	-	-	1.087	-	-	-	-	-	1.087
6.3) Launcher	-	-	0.000	-	-	-	-	-	1.148	-	-	0.771	-	-	-	-	-	0.771
6.4) Recovery	-	-	0.000	-	-	0.166	-	-	1.142	-	-	1.245	-	-	-	-	-	1.245
Subtotal: Support - SJ910 - Installation -FMP Cost	-	-	0.000	-	-	0.846	-	-	4.425	•	-	4.250	-	-	-	-	•	4.250
Gross/Weapon System Cost	-	-	0.000	-	-	9.200	-	-	33.675	-	-	44.951	-	-	-	-	-	44.951

### Remarks:

The Department of the Navy (DoN) added funding thru the Task Force Cyber Awakening (TFCA) in FY17 \$1.250M for Moriah Wind System (MWS) cyber defense upgrades (Information Systems).

Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
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 Cod	e:

The DoN added funding to the Visual Landing Aids program for F-35B required Optical Landing System upgrades starting in FY17.

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

Service Life Management Plan (SLMP) program cost decreased from PB-16 budget due to an unforeseen delay in upgrades to the Mk-7 Arresting Gear Service Life Extension Program (SLEP) ECPs for the Fixed and Crosshead Sheaves. The delay was caused by the significant potential that these major subcomponents of the Mk-7 will need to be modified as part of the solution set to replace the originally planned Advance Arresting Gear (AAG) backfit on all Nimitz class CVNs. With AAG backfit now cancelled, the DoN has initiated an Analysis of Alternatives to address the recovery capability gap on Nimitz class CVNs in 2025, of which extending the capability of the Mk-7 will likely be some part of the solution set. As such, the planned Mk-7 SLEP ECPs, which were originally only planned to extend the current useful life of the Mk-7, and not to increase the recovery capability, were put on hold until the outcome of the AoA is known, at which time they will continue as planned or be redesigned as the AoA outcome directs. Funds for Mk-7 SLEP ECPs from PB-16 have been reprioritized across the other products in the ALRE portfolio to address a backlog of ALRE safety, critical obsolescence and high priority readiness changes to other products as described in the footnotes below.

[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.

[Hardware/Non-Recurring] CE 2.1.6 - Cost element omitted. Associated 2.1.6 costs are captured in Information Systems cost element 1.1.1.

[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:

- (13) CE 1.1.1 Information Systems hardware cost increases from FY16 to FY17 are due to the start of an ECP for the Landing Signal Operator Display System (LSODS) that is required to address a critical fleet support and production obsolescence issue. Without this change, all Nimitz CVN LSODS will not be supportable and an LSODS cannot be produced and delivered for CVN 79.
- (14) CE 1.1.2 (VLA) Fiscal year cost increases, from FY16 to FY17, are due to additional change kits for Visual Landing Aids (VLA) products. The most critical is the upgrade to the Improved Fresnal Lens Optical Landing System (IFLOLS) Phase IV (VLA) which includes F-35B, CBARS & JPALS integration capability, and addresses critical obsolescence. Increases in this cost element are also due to the receipt of additional funding for F-35B required Optical Lighting System (OLS) upgrades. OLS is a critical Safety of Flight system that is required for FCLP/CQ's for aircrew certification prior to shipboard deployment.
- (15) CE 1.1.3 (Launcher) Launcher recurring hardware cost increase from FY16 to FY17, is due primarily to the Engineering Change Proposal (ECP) effort that addresses a critical in port maintenance capability for the C-13 Catapult.
- (16) CE 1.1.4 (Recovery) The fluctuation in costs from the PB16 budget is due to re-phasing program priorities and deferring some kit procurements until later in the FYDP.
- (17) CE 2.1.2 (VLA) Fiscal year cost increases from FY16 to FY17 due to Aviation Lighting System Control Panel Set (ALS-CPS), Multi-Functional Display, and Deck Status Display Engineering Change Proposals (ECP) that replace obsolete and unsupportable systems on Air Capable Ships, and provide Night Vision Device (NVD) capability for helicopter recovery. The increase is also due to the receipt of additional funding for F-35B required Optical Lighting System upgrades.
- (18) CE 2.1.4 (Recovery) Funding increased between FY16 and FY17 due to development of several safety-driven ECPs to a variety of recovery systems including the Advanced Recovery Control (ARC) system on CVNs and the Recovery Assist Secure and Traverse (RAST) system on Air Capable Ships.
- (19) CE 4.2 (VLA) Cost increased from FY15 to FY16 due to increased efforts with fielding Improved Fresnel Lens Optical Landing System (IFLOLS) Phase IV.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 1 / ALRE - Advanced Arresting Gear (SJ301)

	Prior			FY 2017	FY 2017	FY 2017					То	
Resource Summary	Years	FY 2015	FY 2016	Base	oco	Total	FY 2018	FY 2019	FY 2020	FY 2021	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	3.685	5.655	2.234	-	2.234	4.673	4.694	5.301	3.495	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	3.685	5.655	2.234	-	2.234	4.673	4.694	5.301	3.495	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	3.685	5.655	2.234	-	2.234	4.673	4.694	5.301	3.495	Continuing	Continuing
(The following	Resource Sumr	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

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

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).

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016	
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 1 / ALRE - Advanced Arresting Gear (SJ301)

Models of Systems Affected: MK-7 legacy - Modification Type: Advanced Arresting Gear (SJ301) Related RDT&E PEs: 0604512N

Shorebased

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I Total Cost (\$ M)	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I	Qty (Each) I
Procurement						-				-		-
<b>Modification Item 1 of 1:</b> ALRE - Advanced Arresting Gear (SJ301)												
B Kits												
Recurring												
1.1.1) Installation Kits - Organic <sup>(20)</sup>	1 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1/ -
Subtotal: Recurring	- /0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Non-Recurring												,
1.2.1) Non-Recurring Engineering - NonOrganic (21)	- 1 -	- / 0.734	- /1.843	- /1.596	- 1 -	- /1.596	- /3.776	- /3.776	- /4.473	- /2.929	Continuing	Continuing
1.2.2) Data - Organic - Organic <sup>(22)</sup>	- 1 -	- / 0.966	- /2.016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /2.98
Subtotal: Non-Recurring	- /0.000	- /1.700	- /3.859	- /1.596	- / -	- /1.596	- /3.776	- /3.776	- /4.473	- /2.929	Continuing	Continuing
Subtotal: ALRE - Advanced Arresting Gear (SJ301)	1 / 0.000	- /1.700	- /3.859	- /1.596	- / -	- /1.596	- /3.776	- /3.776	- /4.473	- /2.929	Continuing	Continuing
Subtotal: Procurement, All Modification Items	- /0.000	- /1.700	- /3.859	- /1.596	- / -	- /1.596	- /3.776	- /3.776	- /4.473	- /2.929	Continuing	Continuing
Support (All Modification Items)												
2.1) ILS	- /0.000	- / 0.534	- / 0.260	- / 0.186	- 1 -	- / 0.186	- / 0.238	- / 0.247	- / 0.146	- / 0.155	Continuing	Continuing
2.2) PE	- /0.000	- <i>l</i> 1.451	- /1.536	- / 0.452	- 1 -	- / 0.452	- / 0.659	- / 0.671	- / 0.682	- / 0.411	Continuing	Continuing
Subtotal: Support	- /0.000	- /1.985	- /1.796	- /0.638	- / -	- /0.638	- /0.897	- /0.918	- /0.828	- /0.566	Continuing	Continuing
Installation												
Subtotal: Installation	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	0.000	3.685	5.655	2.234	-	2.234	4.673	4.694	5.301	3.495	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 1 / ALRE - Advanced Arresting Gear (SJ301)
Modification Item 1 of 1: ALRE - Advanced Arresting Gear (SJ301)	•	
Installation Information		
Method of Implementation (Organic): Installation Kits - Not Installed		Installation Quantity: 1
Footnotes:  (20) FY15 installation costs of \$3.250M have been realigned to cost elemer funding. However, to avoid critical test schedule delays, the LBU kit has be (21) 1.2.1 - Non-Recurring Engineering - Address engineering changes, obscompliance and field critical software updates. CVN78 will deliver with se Engineering cost element in FY18-21 are there to support these known def exhibit will be updated to move funds to the installation kit and installation (22) FY15 and FY16 data funds required to update drawings and specifications.	een transferred as Government Furnished Equipment (GFE) to G solescence of hardware, correct deficiencies found during integra veral known AAG deficiencies that could not be corrected prior to ficiencies that will need to be corrected after delivery. As the sche cost elements in a future budget cycle.	eneral Atomics under the AAG SDD program.  ation test and development test evaluation, and maintain cyber security  delivery. As a result additional funds allocated to the Non-Recurring edule to design, produce and install retrofit kits is fully defined, the

LI 4213 - Aircraft Support Equipment Navy

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016	
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)

· · ·												
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	9.079	44.313	33.937	-	33.937	21.421	22.506	19.900	19.313	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	9.079	44.313	33.937	-	33.937	21.421	22.506	19.900	19.313	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	9.079	44.313	33.937	-	33.937	21.421	22.506	19.900	19.313	Continuing	Continuing
(The following	g Resource Sum	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget requests	are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

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.

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.

[Blk I/ISNS Kits - (Full)] Note also applies to cost elements 1.2.1 and 2.2.1. ADMACS Installation Modification Item 1 of 1; 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 require a full Blk II kit and a full installation; current Blk II CVNs (69/71/75) require an upgrade kit only. Specifically, CVN77 and the Trainer require a completion kit.

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 funding increase from \$ 9.1M in FY15 to \$44.3M in FY16

does not present any execution challenges; FY16 funding execution is not dependent on the previous year's funding level. The FY15 funding in the budget is for obsolescence and Cybersecurity ECPs; no kit procurements, and

no installs. The FY16 funding is for 3 kits, 3 ship installs, pre-planning for 2 FY17 installs, as well as continuing the obsolescence and Cybersecurity ECP efforts. In FY16, \$16.5M was added to ADMACS by Task Force Cyber

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
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)
Awakening, as directed by the Chief of Naval Operations (CNO) in order to CVN74 and CVN76 into FY16 and FY18 from FY20 and FY23, respectively. The time from the kits and do 2-year rolling obsolescence upgrade ECPs for each bundle. The occurring in FY18. Installation cost for trainers is less because the install occurring in FY18.	om procurement to installation varies due to: 1) constantly shifting CVN a a 3 kits procured in FY16 are full kits, while the kit procured in FY17 is in s	evailabilities, and 2) the need to bundle procurements of several support of a trainer with considerably reduced installation cost
FY14 and prior funded under Aircraft Support Equipment (BLI 4216)		

LI 4213 - Aircraft Support Equipment Navy

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016			
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)		

Models of Systems Affected: ADMACS E	Block 2	Modifi	cation Typ	<b>e:</b> Increas	e Capabilit	y	Re	lated RDT	<b>&amp;E PEs:</b> 06	304512N		
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I 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	- 1 -	- 1 -	3 / 11.799	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	3 / 11.
1.1.2) Hardware Obsolescence ECPs - Organic <sup>(23)</sup>	- 1 -	- /1.181	- /3.253	- / 1.845	- 1 -	- <i>l</i> 1.845	- /1.982	- 1 -	- 1 -	- / -	- 1 -	- /8.
1.1.3) Cybersecurity - Organic	- 1 -	- / 0.879	- /4.536	- /3.147	- 1 -	- /3.147	- /1.711	- 1 -	- 1 -	- 1 -	- 1 -	- /10.
1.1.4) Systems Integration & Installation - Organic	- 1 -	- / 1.430	- /2.880	- /3.103	- 1 -	- /3.103	- /2.072	- 1 -	- 1 -	- / -	- 1 -	- /9.
Subtotal: Recurring	- /0.000	- /3.490	- /22.468	- /8.095	- / -	- /8.095	- /5.765	- / -	- / -	- / -	- / -	- /39.
Non-Recurring												
1.2.1) Completion Kits - NonOrganic (24)	- 1 -	- 1 -	- 1 -	1 / 1.810	- 1 -	1 / 1.810	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1/1
Subtotal: Non-Recurring	- /0.000	- / -	- / -	- /1.810	- / -	- /1.810	- / -	- / -	- / -	- / -	- / -	- /1
Subtotal: Block I and Block I/ISNS	- / -	- /3.490	3 / 22.468	1 / 9.905	- / -	1/9.905	- /5.765	- / -	- / -	- / -	- / -	4/41
Modification Item 2 of 2: Block II	,											
B Kits												
Recurring												
2.1.2) Hardware Obsolescence ECPs - Organic <sup>(25)</sup>	- 1 -	- / 0.850	- /1.947	- /2.370	- 1 -	- /2.370	- <i>l</i> 1.693	- /4.738	- /3.103	- /3.659	Continuing	Continuing
2.1.3) Cyber Security - Organic (26)	- 1 -	- / 0.510	- 12.687	- /4.854	- 1 -	- /4.854	- /3.134	- /4.391	- /3.565	- / 3.661	Continuing	Continuing
2.1.4) Systems Integration and Installation - Organic (27)	- 1 -	- / 0.600	- /2.114	- /3.068	- 1 -	- /3.068	- /1.943	- /4.489	- /2.175	- 12.748	Continuing	Continuing
Subtotal: Recurring	- /0.000	- /1.960	- /6.748	- /10.292	- / -	- /10.292	- /6.770	- /13.618	- /8.843	- /10.068	Continuing	Continuin
Non-Recurring												
2.2.1) Block II Upgrade Kits - NonOrganic <sup>(28)</sup>	3 / 0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2 / 2.566	1 / 1.287	1 / 1.287	Continuing	Continuing
Subtotal: Non-Recurring	- /0.000	- / -	- / -	- / -	- / -	- / -	- / -	- /2.566	- /1.287	- /1.287	Continuing	Continuin
Subtotal: Block II	3/0.000	- /1.960	- /6.748	- /10.292	- / -	- /10.292	- /6.770	2 / 16.184	1 / 10.130	1 / 11.355		Continuin
Subtotal: Procurement, All Modification Items	- /0.000	- /5.450	- /29.216	- /20.197	- / -	- /20.197	- /12.535	- /16.184	- /10.130	- /11.355		Continuing
support (All Modification Items)												
· · · · · · · · · · · · · · · · · · ·	- 1 -	- / 0.525	- /2.100	- /1.906	- 1 -	- /1.906	- /1.490	- /1.438	- /1.263	- /1.247	Continuing	Continuing
3.1) ILS <sup>(29)</sup>												1
3.1) ILS <sup>(29)</sup> 3.2) PE	- 1 -	- /3.104	- /3.806	- /4.464	- 1 -	- /4.464	- /3.167	- / 3.257	- <i>I</i> 2.017	- /2.334	Continuing	Continuing

LI 4213 - Aircraft Support Equipment Navy

UNCLASSIFIED
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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016	
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)

Models of Systems Affected: ADMACS	Modifi	Modification Type: Increase Capability						Related RDT&E PEs: 0604512N				
	Prior Years FY 2015 FY 2016 Base				FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)
Modification Item 1 of 2: Block I and Block I/ISNS	- /0.000	- 1 -	- /4.213	- /5.044	- 1 -	- /5.044	- 14.229	- 1 -	- 1 -	- 1 -	- 1 -	- / 13.486
Modification Item 2 of 2: Block II	- /0.000	- 1 -	- /4.978	- /2.326	- 1 -	- /2.326	- / -	- /1.627	- /6.490	- 14.377	- /4.377	- / 24.175
Subtotal: Installation	- /0.000	- / -	- /9.191	- /7.370	- / -	- /7.370	- /4.229	- /1.627	- /6.490	- /4.377	- /4.377	- /37.661
Total												
Total Cost (Procurement + Support + Installation)	0.000	9.079	44.313	33.937	-	33.937	21.421	22.506	19.900	19.313	Continuing	Continuing

Exhibit P-3a, Indivi	dual Modification: P	B 2017 Navy				Date: February 2016					
<b>Appropriation / Bu</b> 1810N / 03 / 3	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 4213 / Aircraft Su			Modification Number / Title: 2 / ALRE - ADMACS Block Upgrade (SJ302)					
Modification Item 1 of 2	: Block I and Block I/ISNS					•					
Manufacturer Informati	on										
Manufacturer Name: Chu	ıgaach Alaska Corp Blk I/	ISNS Kits - (Full) (30)		Manufacturer Location: Chesapeake, VA							
Administrative Leadtime	(in Months): 1			Production Leadtime (in Months): 11							
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021				
Contract Dates		Oct 2015									
Delivery Dates		Sep 2016									
Manufacturer Name: Chu	igaach Alaska Corp Com	pletion Kits		Manufacturer Location: Chesapeake, VA							
Administrative Leadtime	(in Months): 1			Production Leadtime (in Months): 11							
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021				
Contract Dates			Oct 2016								
Delivery Dates			Sep 2017								

### Installation Information

Method of Implementation: AIT:: Installation Name: Blk I/ISNS Kits - (Full)

· ·							,					
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	- 1 -	- 1 -	1 / 4.213	1 / 5.044	- 1 -	1 / 5.044	1 / 4.024	- 1 -	- 1 -	- 1 -	- 1 -	3 / 13.281
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	- 1 -	1 / 4.213	1 / 5.044	- 1 -	1 / 5.044	1 / 4.024	- 1 -	- 1 -	- / -	- 1 -	3 / 13.281

## Installation Schedule

			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			FY 2	2021			
	PYS	Q1	Q2	Q3	Q4	TC	Tot																								
In	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Out	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3

Exhibit P-3a, Individual Modification: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4213 / Aircraft Support Equipment

2 / ALRE - ADMACS Block Upgrade
(SJ302)

Modification Item 1 of 2: Block I and Block I/ISNS

Installation Information

Method of Implementation: AIT:: Installation Name: Completion Kits

motified of impromotitution 7 tit in motali												
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / -	- 1 -	- 1 -	- 1 -
FY 2015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.205	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.205
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.205	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.205

## Installation Schedule

			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			FY 2	.021			
	PYS	Q1	Q2	Q3	Q4	TC	Tot																								
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
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)

Modification Item 2 of 2: Block II

Manufacturer Location: Chesapeake, Va Manufacturer Name: Chugaach Alaska Corp. - Block II Upgrade Kits (31) Production Leadtime (in Months): 11

Administrative Leadtime (in Months): 1

**Dates** FY 2015 FY 2016 FY 2017 FY 2018 FY 2019 FY 2020 FY 2021 Contract Dates Oct 2018 Oct 2019 Oct 2020 **Delivery Dates** Sep 2019 Sep 2020 Sep 2021

### Installation Information

Method of Implementation: AIT:: Installation Name: Block II Upgrade Kits

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	2 / 4.978	1 / 2.326	- / 0.000	1 / 2.326	- 1 -	- 1 -	- 1 -	- 1 -	- /0.000	3 / 7.304
FY 2015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- / 1.627	2 / 6.490	- 1 -	- 1 -	2 / 8.117
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 4.377	- 1 -	1 / 4.377
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 4.377	1 / 4.377
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	- 1 -	2 / 4.978	1 / 2.326	- 1 -	1 / 2.326	- 1 -	- / 1.627	2 / 6.490	1 / 4.377	1 / 4.377	7 / 24.175

### Installation Schedule

			FY 2	2015			FY 2	2016			FY 2	2017			FY 2	2018			FY 2	2019			FY 2	2020			FY 2	021			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot																				
In	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	1	1	7
Out	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	- 1	2	7

### Footnotes:

- (23) CE 1.1.2 1.1.4 Slight variation between costs from PB16 due to a more accurate accounting of Engineering Change Proposals (ECPs) and Cybersecurity requirements and cost estimates.
- (24) FY 2017 completion kit is in support of a trainer with considerably reduced installation cost occurring in FY 2018. Installation cost for trainers is less because the install occurs in a lab based facility.
- (25) Hardware obsolescence represents the organic work required to identify replacement components (and associated software) that have gone obsolete. Funding represents the organic work required to identify replacement components (and associated software) that have gone obsolete. Funding represents the organic work required to identify replacement components (and associated software) that have gone obsolete. 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

LI 4213 - Aircraft Support Equipment Navy

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
1 1 1 3 3 3 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 2 / ALRE - ADMACS Block Upgrade (SJ302)

for the organic work to support the ECPs that will upgrade the fielded Block II ships to the rebaselined configuration. CE 2.1.2 - 2.1.4 - Costs increased from PB16 due to growing obsolescence essentials and cybersecurity mandates. 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; systems increased from 3 in FY14 to 11 in FY19.

- (26) Broadened CyberSecurity requirements drive increased efforts to remain compliant with Software CyberSecurity directives and Information Assurance mandates. Maintaining compliance is critical to retaining an Authority to Operate within the Fleet.
- (27) 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 licenses and 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.
- (29) Increase in ILS in FY16 due to the one time development of the NTSP (Navy Training Systems Plan) and implementation of the formalized schoolhouse training.
- (30) Chugaach Alaska Corporation is the manufacturer for the three kit types. 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.
- (31) Installation costs include advanced planning costs for follow-on year installations as follows: Block I and Block I/ISNS (Full Kits) in FY16 and FY17; Block II (Upgrade Kits) in FY16, FY19 (planning costs only \$1.627M), FY20 and FY21.

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title:	Modification Number / Title: 3 / ALRE - Electromagnetic Aircraft
161010 7 03 7 3	4213 / Aircraft Support Equipment	Launch System (EMALS) (SJ306)

	Prior			FY 2017	FY 2017	FY 2017					То	
Resource Summary	Years	FY 2015	FY 2016	Base	oco	Total	FY 2018	FY 2019	FY 2020	FY 2021	Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	-	-	1.057	-	1.057	5.337	7.471	9.343	6.040	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	-	1.057	-	1.057	5.337	7.471	9.343	6.040	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	=	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	1.057	-	1.057	5.337	7.471	9.343	6.040	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	or informational p	urposes only. Th	ne corresponding	budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

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.

LI 4213 - Aircraft Support Equipment

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

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 3 / ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)

Models of Systems Affected: C13-2 Ste	am Catapu	t Modifi	cation Typ	<b>e:</b> Reliabil	ity and Mai	ntainability	Re	lated RDT	<b>&amp;E PEs</b> : 00	604512N		
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M										
Procurement												
<b>Modification Item 1 of 1:</b> ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)												
B Kits												
Recurring												
1.1.1) Software / Cybersecurity - NonOrganic	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 2.630	Continuing	Continuing
1.1.2) ESS Motor/Generator Bearing - NonOrganic	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 5.435	- 1 -	- 1 -	1 / 5.435
1.1.3) PPIS Transformer Rectifier - NonOrganic	- 1 -	- 1 -	- / -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 3.444	- 1 -	- 1 -	- 1 -	1 / 3.444
1.1.4) Ground Fault Detection - NonOrganic	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.476	- 1 -	- 1 -	- 1 -	1 / 0.476
1.1.5) Position Sensor - NonOrganic	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.460	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.460
1.1.6) Hardware Obsolescence - NonOrganic	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.870	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.870
Subtotal: Recurring	- /0.000	- / -	- / -	- / -	- / -	- / -	- /1.330	- /3.920	- /5.435	- /2.630	Continuing	Continuing
Non-Recurring												
1.2.1) Non-Recurring Engineering - Organic (32)	- 1 -	- 1 -	- 1 -	- / 0.349	- 1 -	- /0.349	- /2.596	- 12.477	- /2.450	- /1.900	Continuing	Continuing
Subtotal: Non-Recurring	- /0.000	- / -	- / -	- /0.349	- / -	- /0.349	- /2.596	- /2.477	- /2.450	- /1.900	Continuing	Continuing
Subtotal: ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)	- / -	- / -	- / -	- /0.349	- / -	- /0.349	2/3.926	2/6.397	1 / 7.885	1 / 4.530	Continuing	Continuing
Subtotal: Procurement, All Modification Items	- /0.000	- / -	- / -	- /0.349	- / -	- /0.349	- /3.926	- /6.397	- /7.885	- /4.530	Continuing	Continuing
Support (All Modification Items)												
2.1) PE	- 1 -	- 1 -	- 1 -	- / 0.602	- 1 -	- / 0.602	- / 0.630	- / 0.858	- / 0.901	- / 0.426	Continuing	Continuing
2.2) ILS	- 1 -	- 1 -	- 1 -	- /0.106	- 1 -	- / 0.106	- /0.111	- / 0.216	- / 0.227	- / 0.126	Continuing	Continuing
Subtotal: Support	- /0.000	- / -	- / -	- /0.708	- / -	- /0.708	- /0.741	- /1.074	- /1.128	- /0.552	Continuing	Continuing
Installation			-	-								
<b>Modification Item 1 of 1:</b> ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)	- /0.000	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 10.670	- 1 -	- / 0.330	- / 0.958	- /0.370	- 12.328
Subtotal: Installation	- /0.000	- / -	- / -	- / -	- / -	- / -	- /0.670	- / -	- /0.330	- /0.958	- /0.370	- /2.328
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	1.057	-	1.057	5.337	7.471	9.343	6.040	Continuing	Continuing

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016	
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4213 / Aircraft Support Equipment	Modification Number / Title: 3 / ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)

Modification Item 1 of 1: ALRE - Electromagnetic Aircraft Launch System (EMALS) (SJ306)

Manufacturer Informati	Manufacturer Information												
Manufacturer Name: Ge	neral Atomics (33)			Manufacturer Location: San Diego, CA									
Administrative Leadtime	(in Months): 3			Production Leadtime (in Months): 12									
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2019 FY 2020							
Contract Dates				Dec 2017	Dec 2018	Dec 2019	Dec 2020						
Delivery Dates				Jun 2018	Dec 2019	Dec 2020	Dec 2021						

### Installation Information

Method of Implementation: Method:: Installation Name: EMALS Installation Kits

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2/0.670	- 1 -	- 1 -	- 1 -	- 1 -	2 / 0.670
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2 / 0.330	- 1 -	- 1 -	2 / 0.330
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.958	- 1 -	1 / 0.958
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 0.370	1 / 0.370
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2/0.670	- 1 -	2 / 0.330	1 / 0.958	1 / 0.370	6 / 2.328

### Installation Schedule

	FY 2015 FY 2016			FY 2017 FY 2018					FY 2019			FY 2020			FY 2021																
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	1	-	1	6
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	1	1	6

### Footnotes:

<sup>(32)</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.

 $<sup>^{(33)}</sup>$  In FY18 cost elements 1.1.5 and 1.1.6 will be procured and installed in the same year. Production Leadtime dates vary.

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
1810N / 03 / 3	4213 / Aircraft Support Equipment	4 / LAMPS MK III - SRQ(KU)-4 (S1010)

101011/03/3			421	3 / All Clait	Support Eq	uipinent			4 / LAIVI	ro wik iii -	SNQ(NU)-4	(31010)
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	13.972	19.959	18.910	-	18.910	24.890	25.422	25.981	26.509	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	13.972	19.959	18.910	-	18.910	24.890	25.422	25.981	26.509	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	13.972	19.959	18.910	-	18.910	24.890	25.422	25.981	26.509	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	ourposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

LAMPS MK III is a 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.

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.

The FY 2017 request funds the procurement of 5 AN/SRQ-4(Ku) field install kits and associated support and installation costs to meet the MH-60R deployment schedule.

Objective Inventory is 100 kits. (68 DDGs, 22 CGs, & 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. Five kits were procured with APN funding in prior years to support integration testing requirements. These kits are now available for ship install and will be installed in this line item in FY 2018.

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.

### Notes for installation schedule:

- 1. Kits procured in Budget Line Item 4255 (FY 2014 and Prior) are being installed in this Budget Line Item commencing in FY 2015.
- 2. Five additional units added to prior year quantity procurement. These five kits were procured with APN funding in prior years to support integration testing requirements. These kits are now available for ship install and will be installed in this line item in FY 2018.
- 3. Installations are subject to changes with ship availability schedules.
- 4. Installation unit costs have been updated to reflect estimates based on actual install costs.
- 5. 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.
- 6. Production lead time includes pre-installation checkouts, kitting with other installation hardware and drawings, and time to ship the hardware to the installation site.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
1810N / 03 / 3	4213 / Aircraft Support Equipment	4 / LAMPS MK III - SRQ(KU)-4 (S1010)

10 10 N / 03 / 3			42131 AII	Jian Suppo	nt Equipme	4/LAMPS MK III - SRQ(KU)-4 (51010)						
Models of Systems Affected: LAMPS N	1K III	Modifi	cation Typ	e: Non-Or	ganic		Re	lated RDT	&E PEs:			
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) I Total Cost (\$ M)	Qty (Each) Total Cost (\$					
Procurement	-											
Modification Item 1 of 1: LAMPS MK III - SRQ(KU)-4 (S1010)												
B Kits												
Recurring												
1.1.1) SRQ(KU)-4 - NonOrganic (34)	23 / 0.000	4 / 5.039	7 / 9.977	5 / 10.166	- 1 -	5 / 10.166	6 / 11.847	7 / 12.554	7 / 12.793	7 / 13.036	12 / 25.014	78 / 100.4
Subtotal: Recurring	- /0.000	- /5.039	- /9.977	- /10.166	- / -	- /10.166	- /11.847	- /12.554	- /12.793	- /13.036	- /25.014	- /100.4
Non-Recurring												
1.2.1) NRE - Organic <sup>(35)</sup>	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /1.774	- /1.575	- /1.820	- /5.720	- / 10.8
Subtotal: Non-Recurring	- /0.000	- / -	- / -	- / -	- / -	- / -	- / -	- /1.774	- /1.575	- /1.820	- /5.720	- /10.8
Subtotal: LAMPS MK III - SRQ(KU)-4 (S1010)	23 / 0.000	4 / 5.039	7/9.977	5 / 10.166	- / -	5 / 10.166	6 / 11.847	7 / 14.328	7 / 14.368	7 / 14.856	12 / 30.734	78 / 111.3
Subtotal: Procurement, All Modification Items	- /0.000	- /5.039	- /9.977	- /10.166	- / -	- /10.166	- /11.847	- /14.328	- /14.368	- /14.856	- /30.734	- /111.3
Support (All Modification Items)						•				•	•	
2.1) Data <sup>(36)</sup>	- 1 -	- / 0.462	- /0.471	- / 0.492	- 1 -	- / 0.492	- / 0.543	- / 0.588	- / 0.507	- / 0.480	Continuing	Continuing
2.2) Support Equipment	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- /1.092	- /1.113	- /1.133	- /1.156	Continuing	Continuing
2.3) ILS	- 1 -	- / 1.188	- /1.411	- /1.311	- / -	- / 1.311	- / 1.314	- /1.334	- /1.382	- / 1.405	Continuing	Continuing
2.4) Production Engineering	- 1 -	- / 0.948	- / 0.967	- / 0.899	- 1 -	- / 0.899	- /1.502	- /1.589	- / 1.874	- /1.907	Continuing	Continuing
2.5) Acceptance Test & Evaluation	- 1 -	- / 0.062	- / 0.060	- / 0.055	- 1 -	- / 0.055	- / 0.056	- / 0.114	- / 0.196	- / 0.199	Continuing	Continuing
2.6) GFE	- 1 -	- / 0.462	- / 0.269	- / 0.261	- 1 -	- / 0.261	- / 0.280	- / 0.286	- / 0.291	- / 0.296	Continuing	Continuing
2.7) Training Equipment (37)	- 1 -	- / -	- / 0.849	- 1 -	- / -	- 1 -	- / 0.674	- / 0.238	- 1 -	- / -	- 1 -	- /1.7
Subtotal: Support	- /0.000	- /3.122	- /4.027	- /3.018	- / -	- /3.018	- /5.461	- /5.262	- /5.383	- /5.443	Continuing	Continuing
Installation												
Modification Item 1 of 1: LAMPS MK III - SRQ(KU)-4 (S1010)	- /0.000	- /5.811	- /5.955	- 15.726	- / -	- /5.726	- 17.582	- /5.832	- /6.230	- /6.210	- /24.317	- 167.6
Subtotal: Installation	- /0.000	- / 5.811	- /5.955	- /5.726	- / -	- /5.726	- /7.582	- /5.832	- /6.230	- /6.210	- /24.317	- /67.6
Total												
Total Cost (Procurement + Support + Installation)	0.000	13.972	19.959	18.910	-	18.910	24.890	25.422	25.981	26.509	Continuing	Continuing

Exhibit P-3a, Indivi	idual Modification: P	B 2017 Navy				Date: February 2016	
<b>Appropriation / Bu</b> 1810N / 03 / 3	dget Activity / Budge	et Sub Activity:	P-1 Line Item Nu 4213 / Aircraft Su			Modification Number 4 / LAMPS MK III - S	
Modification Item 1 of 1	: LAMPS MK III - SRQ(KU)	)-4 (S1010)	·			·	
Manufacturer Informati	on						
Manufacturer Name: L3				Manufacturer Location: S	alt Lake City, UT		
Administrative Leadtime	(in Months): 8			Production Leadtime (in N	Months): 21		
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jun 2015	Jun 2016					
Delivery Dates	Mar 2017	Mar 2018					
Manufacturer Name: TBI	D (Competitive Procurement	t) <sup>(38)</sup>		Manufacturer Location: TI	3D (Competitive Procure	ement)	
Administrative Leadtime	(in Months): 5			Production Leadtime (in N	Months): 25		
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates			Apr 2019	Apr 2020	Apr 2021	Apr 2022	Apr 2023

## Installation Information

Method of Implementation: NAWCAD St. Inigoes Installation Team:: Installation Name: AN/SRQ-4 Installations

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	7 / 5.811	8 / 5.955	3 / 2.454	- / 0.000	3 / 2.454	5 / 3.791	- 1 -	- 1 -	- 1 -	- /0.000	23 / 18.011
FY 2015	- 1 -	- 1 -	- 1 -	4 / 3.272	- 1 -	4 / 3.272	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	4 / 3.272
FY 2016	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	5 / 3.791	2 / 2.333	- 1 -	- 1 -	- 1 -	7 / 6.124
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	3 / 3.499	2 / 2.492	- 1 -	- 1 -	5 / 5.991
FY 2018	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	3 / 3.738	3 / 3.105	- 1 -	6 / 6.843
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	3 / 3.105	4 / 3.242	7 / 6.347
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	7 / 5.674	7 / 5.674
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	7 / 5.674	7 / 5.674
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	12 / 9.727	12 / 9.727
Total	- 1 -	7 / 5.811	8 / 5.955	7 / 5.726	- 1 -	7 / 5.726	10 / 7.582	5 / 5.832	5 / 6.230	6 / 6.210	30 / 24.317	78 / 67.663

## Installation Schedule

			FY 2	2015			FY 2	016			FY 2	2017			FY 2	2018			FY 2	2019			FY	2020			FY 2	021			
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	3	-	4	-	3	2	3	1	2	2	2	3	2	3	2	1	1	1	2	2	-	1	2	3	-	1	2	30	78
Out	-	-	3	-	4	-	3	2	3	1	2	2	2	3	2	3	2	1	1	1	2	2	-	1	2	3	-	1	2	30	78

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3		Modification Number / Title: 4 / LAMPS MK III - SRQ(KU)-4 (S1010)

#### Footnotes:

<sup>(34)</sup> 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. Production buys completed in FY 2016. Since the SRQ's and ARQ's shared a production line, fixed costs traditionally shared between the two programs will be paid solely under the SRQ budget starting in FY 2017. FY 2016 quantity decrease of one unit due to an increase of four installs scheduled for FY 2016 due to ship availability.

<sup>(35)</sup> Cost Element 1.2.1, NRE funding supports individual Engineering Change Proposals to correct expected obsolescence issues.

<sup>(36)</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. Cost Element 2.1 increased from FY 2016 to FY 2017 due to the change of the Cruiser (CG) / Destroyer (DDG) mix of installs. The data line item 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.

<sup>(37)</sup> FY16 training funding is for modifying the curriculum to incorporate ECPs and installing hardware to support the standup of an AN/SRQ-4 trainer.

<sup>(38)</sup> FY 2017 production lead time increased due to the risk associated with the possibility of a new contractor.

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

**Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4226 / Meteorological Equipment

Aircraft 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 Item MDAP/MAIS Code(s): N/A

			• •									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	81.879	12.825	15.090	29.253	-	29.253	27.020	22.605	18.837	19.802	-	227.311
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	81.879	12.825	15.090	29.253	-	29.253	27.020	22.605	18.837	19.802	-	227.311
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	81.879	12.825	15.090	29.253	-	29.253	27.020	22.605	18.837	19.802	-	227.311
(The following	Resource Sum	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget requests	s are documente	ed elsewhere.)		*		
Initial Spares (\$ in Millions)	-	2.006	0.267	0.169	-	0.169	0.240	0.266	0.218	0.223	Continuing	Continuing
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

### **Description:**

The increase from the FY 2016 to the FY 2017 budget is for the Littoral Battlespace Sensors - Unmanned Undersea Vehicles (LBS-UUV) Program's upgrades/backfits and Glider replacement units; the continuation of upgrades to the environmental satellite data receivers/processers; and the Meteorological and Oceanographic Surface-based Atmospheric Sensing Capability (METOC SASC) family of systems. The increase in funding is for the procurement of submarine launched LBS-AUV vehicles and shipsets.

Decrease in Meteorological Equipment by \$0.47M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

This item provides new and replacement meteorological equipment for Navy and Marine Corps Air Stations, Navy ships, USMC Operational Forces 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 procurement has been coordinated with other DOD and civilian agencies. Equipment is funded under the following programs:

[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 Joint Polar-orbiting Satellite System (JPSS) formerly National Polar-orbiting Operational Environmental Satellite System (NPOESS) satellites, 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.

[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.

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Exhibit P-40, Budget Line Item Justification: PB 2017 N	lavy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 03: Aviation Suppo Aircraft Support Equipment	rt Equipment / BSA 3:	P-1 Line Item Num 4226 / Meteorologic	
ID Code (A=Service Ready, B=Not Service Ready): A	rogram Elements for Code B I	Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A Item MDAP/MAIS Code(	(s): N/A		
[P40A / SP550 METOC SASC Upgrades]: Procurement of Government Systems (ASOS) and the 9 fielded Supplemental Weather Radars (SWF procurements under this project will provide required system upgrades at [P40A / SP600 Littoral Battlespace Sensors - Unmanned Undersea Veh Undersea Vehicle ocean sensor systems. These include electrical power sensors that characterize the ocean bottom (bathymetry, imagery, etc.) will provide IPOE payload capabilities for submarine launched missions. remotely from the Naval Oceanographic Office (NAVOCEANO), Stennis [P40A / SP190 TESS/NITES]: Tactical Environmental Support System/N	Off-The-Shelf/Commercial Off-TR). Both atmospheric sensing syas required by the National Weat icles (LBS-UUV)]: [P40A / SP60 ared, short duration (~days) Auto and sense ocean volume param. The AUVs are preprogrammed space Center, MS from the Glick and USMC forward deployed united the specific space of the sense ocean and USMC forward deployed united the sense ocean area of the sense ocean and use of the sense ocean area ocean area of the sense ocean area ocean	stems are essential for avither Service Interagency A  0 Littoral Battlespace Sensionomous Undersea Vehicle eters (conductivity, temper with mission profiles and oder Operations Center (GC mmental System (TESS/NIT nits around the globe. TES	greement.  sors - Unmanned Undersea Vehicles (LBS-UUV)]: Procures Unmanned as (AUV) and long duration (~months) buoyancy driven ocean Gliders which carry rature, depth, optical clarity, currents, etc.). The AUV submarine variant (AUV(S)) once launched are totally autonomous. The Ocean Gliders are controlled

LI 4226 - Meteorological Equipment Navy

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4226 / Meteorological Equipment

Aircraft 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 Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			<b>Prior Years</b>	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
P-40a	Meteorological Equipment	P-5a		- /81.879	- / 12.825	- / 15.090	- / 29.253	- / -	- / 29.253
P-40	Total Gross/Weapon System Cost			- / 81.879	- / 12.825	- /15.090	- / 29.253	- 1 -	- / 29.253

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

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

#### Justification:

The primary focus of the FY 2017 request is the Littoral Battlespace Sensors - Unmanned Undersea Vehicles (LBS-UUV) Program's upgrades/backfits and Glider replacement units; the continuation of upgrades to the environmental satellite data receivers/processers; and the Meteorological and Oceanographic Surface-based Atmospheric Sensing Capability (METOC SASC) family of systems. The increase in funding is for the procurement of submarine launched LBS-AUV vehicles and shipsets.

LI 4226 - Meteorological Equipment Navy **UNCLASSIFIED** 

P-1 Line #106 Volume 3 - 59

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Date: February 2016

Aggregated Items Title:

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N / 03 / 3		- 3		,					eteorolog							/leteorolo		quipment		
			P	rior Years	3		FY 2015			FY 2016		FΥ	/ 2017 Bas	se	F	Y 2017 OC	0	FY	' 2017 Tot	al
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cos	t <b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
1) SP051 Satellite Receive	er Up	grades (	(Space) <sup>(1)</sup>																	
1.1) AN/FMQ-17 Satellite Receiver Upgrade Kit <sup>(†)</sup>	А		69.000	11	0.759	72.000	7	0.504	73.333	3	0.220	74.833	6	0.449	-	-	-	74.833	6	0.449
1.2) AN/SMQ-11 Satellite Receiver Upgrade Kit <sup>(†)</sup>	А		50.636	22	1.114	53.000	1	0.053	-	-	-	54.100	9	0.487	-	-	-	54.100	9	0.487
1.3) AN/FMQ-17 Antenna Positioner Upgrade Kit <sup>(†)</sup>	A		-	-	-	-	-	-	245.000	1	0.245	-	-	-	-	-	-	-	-	-
1.4) AN/SMQ-11 Antenna Pedestal Upgrade Kit <sup>(†)</sup>	А		171.292	24	4.111	189.667	3	0.569	193.500	4	0.774	197.333	6	1.184	-	-	-	197.333	6	1.184
Subtotal: 1) SP051 Satelli Upgrades (Space)	te Re	ceiver	-	-	5.984	-	-	1.126	-	-	1.239	-	-	2.120	-	-	-	-	-	2.120
2) SP200 Hazardous Wea	ther C	Detectio	n & Display C	apability (HW	VDDC)															
2.1) SPS-48E/G Variant	A		230.000	10	2.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) SP200 Hazar Weather Detection & Disp Capability (HWDDC)			-	-	2.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3) SP400 METOC Satellite	Data	Exploit	tation Readin	ess <sup>(2)</sup>																
3.1) FNMOC Upgrades <sup>(†)</sup>	А		1,117.750	4	4.471	2,113.000	1	2.113	1,114.000	1	1.114	-	-	-	-	-	-	-	-	-
3.2) NAVOCEANO Upgrades <sup>(†)</sup>	А		589.250	4	2.357	1,382.000	1	1.382	902.000	1	0.902	-	-	-	-	-	-	-	-	-
Subtotal: 3) SP400 METO Data Exploitation Reading		tellite	-	-	6.828	-	-	3.495	-	-	2.016	-	-	-	-	-	-	-	-	-
4) SP550 METOC SASC U	pgra	des																		
4.1) ASOS Upgrades (3)(†)	А		44.124	193	8.516	34.037	82	2.791	55.880	50	2.794	48.771	48	2.341	-	-	-	48.771	48	2.341
4.2) SWR Upgrades (4)(†)	А		35.674	46	1.641	60.647	17	1.031	51.000	16	0.816	58.533	15	0.878	-	-	-	58.533	15	0.878
Subtotal: 4) SP550 METO Upgrades	C SA	sc	-	-	10.157	-	-	3.822	-	-	3.610	-	-	3.219	-	-	-	-	-	3.219
5) SP600 Littoral Battlesp	ace S	Sensors	- Unmanned	Undersea Vel	hicles (LBS-	UUV) <sup>(5)</sup>														
5.1) Littoral Battlespace Sensors - Gliders (LBS-G) <sup>(†)</sup>	A		165.493	142	23.500	-	-	-	198.000	23	4.554	200.000	20	4.000	-	-	-	200.000	20	4.000
5.2) Littoral Battlespace Sensors - Autonomous	А		3,071.250	4	12.285	2,600.000	1	2.600	-	-	-	-	-	-	-	-	-	-	-	-

LI 4226 - Meteorological Equipment Navy

**UNCLASSIFIED** 

P-1 Line #106 Volume 3 - 60

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Date: February 2016

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<b>Appropriation</b> / 1810N / 03 / 3	Bu	idget	Activity	/ Budg	et Sub	Activity		<b>P-1 Line</b> 4226 / M								ggregat leteorolo		s Title: quipment		
			Р	rior Years	<u> </u>		FY 2015	<del></del>		FY 2016		FY	2017 Ba	se	F	Y 2017 OC	0	FY	2017 Tot	al
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	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
Undersea Vehicles (LBS-AUV) <sup>(†)</sup>											· · ·									
5.3) Autonomous Undersea Vehicles (Submarine) AUV(S) <sup>(†)</sup>	A		-	-	-	-	-	-	-	-	-	2,060.000	4	8.240	-	-	-	2,060.000	4	8.24
5.4) Littoral Battlespace Sensors - (LBS-AUV) Shipset	Α		1,950.000	2	3.900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5) Autonomous Undersea Vehicles (Submarine) - AUV(S) Shipset v1 <sup>(†)</sup>	A		-	-	-	-	-	-	-	-	-	3,030.000	3	9.090	-	-	-	3,030.000	3	9.09
5.8) UUV Upgrades/ Backfits	Α		-	-	1.015	-	-	0.810	-	-	0.300	-	-	0.350	-	-	-	-	-	0.35
Subtotal: 5) SP600 Littora Battlespace Sensors - Un Undersea Vehicles (LBS-	nmanı		-	-	40.700	-	-	3.410	-	-	4.854	-	-	21.680	-	-	-	-	-	21.68
6) METMF (R) NEXGEN																'	•	·		
6.1) METMF (R) NEXGEN/Subsystems	A		1,542.857	7	10.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 6) METMF (R) N		EN	-	-	10.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7) SP555 Production Sup	port																			
7.1) TESS/NITES	Α		-	-	-	-	-	-	-	-	0.121	-	-	-	-	-	-	-	-	-
7.2) Satellite Receiver Upgrades	Α		-	-	0.271	-	-	0.089	-	-	0.083	-	-	0.082	-	-	-	-	-	0.08
7.3) LBS-UUV	Α		-	-	2.142	-	-	0.250	-	-	0.208	-	-	0.766	-	-	-	-	-	0.76
Subtotal: 7) SP555 Produ Support	ction		-	-	2.413	-	-	0.339	-	-	0.412	-	-	0.848	-	-	-	-	-	0.84
8) SP776 Non-FMP	, , ,																			
8.1) Satellite Receiver	A		-	-	0.822	-	-	0.416	-	-	0.329	-	-	0.611	-	-	-	-	-	0.61
Upgrades											0.329	_	-	0.611	_	_	l -	_	-	0.61
Subtotal: 8) SP776 Non-F			-	-	0.822	-	-	0.416	-	-	0.020	Ll						L		
Subtotal: 8) SP776 Non-F 9) SP777 FMP	MP		-	-	0.822	-	-	0.416	-	-	0.020						_			
Subtotal: 8) SP776 Non-F	MP		-	-	1.875		-	0.416	-	-	0.251	-	-	0.775	-	-	-	-	-	0.77
Subtotal: 8) SP776 Non-F 9) SP777 FMP 9.1) Satellite Receiver Upgrades	MP			-		-		0.217	-				-			-	-		-	0.77 <b>0.77</b>
Subtotal: 8) SP776 Non-F 9) SP777 FMP 9.1) Satellite Receiver	FMP A		-	-	1.875	-	-	0.217	-	-	0.251	-		0.775	-		-	-		
Subtotal: 8) SP776 Non-F 9) SP777 FMP 9.1) Satellite Receiver Upgrades Subtotal: 9) SP777 FMP	FMP A		-	-	1.875	-	-	0.217	-	-	0.251	-		0.775	-		-	-		

LI 4226 - Meteorological Equipment Navy

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Date: February 2016

Aggregated Items Title:
4226 / Meteorological Equipment

Meteorological Equipment

							'			9							3	10		
			P	rior Year	s		FY 2015			FY 2016		FY	′ 2017 Ba	se	FY	2017 OC	0	FY	/ 2017 Tot	tal
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	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: 10) SP190 TESS	S/NITI	ES	-	-	0.000	-	-	-	-	-	2.379	-	-	-	-	-	-	-	-	-
Total			-	-	81.879	-	-	12.825	-	-	15.090	-	-	29.253	-	-	-	-	-	29.253

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

#### Footnotes:

- (1) FY17-FY21 Satellite Receiver Upgrade quantities represent the number of sites/platforms upgraded annually.
- (2) 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.
- (3) Quantities represent the number of sites upgraded annually for ASOS and SWR Upgrades; multiple upgrades may occur at a single site in a given year. Upgrades are GOTS/COTS hardware and associated software for installed Automated Surface Observing System (ASOS). Unit costs represent the average unit cost of each planned Hardware/Software procurement or refresh which varies based on subsystem, site or platform. ASOS Upgrades FY 2017 quantities represent 48 ACU Phase 1 (hardware and software) upgrades.
- (4) Quantities represent the number of sites upgraded annually for ASOS and SWR Upgrades; multiple upgrades may occur at a single site in a given year. Upgrades are GOTS/COTS hardware and associated software for installed Automated Surface Observing System (ASOS). Unit costs represent the average unit cost of each planned Hardware/Software procurement or refresh which varies based on subsystem, site or platform. SWR Upgrades FY 2017 quantities represent 5 RCU Replacements and 10 Digital Stalo upgrades.
- (5) 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) launched variants include both AUV(Submarine) units and AUV(Submarine) shipsets. AUV(S) shipsets consist of operational and maintenance equipment including launch, mooring and submarine modification kits. Littoral Battlespace Sensors Gliders (LBS-G) FY16 FY21 quantities represent replacement units. LBS-UUV Upgrades/Backfits represent AUV and Glider system improvements and via back-fits and forward-fits.
- (6) 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.

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<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4226 / Meteorological Equipment

Meteorological Equipment

1810N / 03 / 3		-	4	226 / Meteorolog	cal Equipment			Mete	orological	Equip	ment	
Item Number / Title [DODIC]	0 0	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
) SP051 Satellite Receiver Upgrades	(Sp	ace)						( 11 )	( )			1
1.1) AN/FMQ-17 Satellite Receiver Upgrade Kit		2015	Raytheon / Indianpolis	C / CPFF	SPAWAR	Feb 2015	Jun 2015	7	72.000	Υ		Jun 2011
1.1) AN/FMQ-17 Satellite Receiver Upgrade Kit		2016	Raytheon / Indianapolis	C / CPFF	SPAWAR	Feb 2016	Jun 2016	3	73.333	Y		Jun 2011
1.1) AN/FMQ-17 Satellite Receiver Upgrade Kit		2017	Raytheon / Indianapolis	C / CPFF	SPAWAR	Feb 2017	Jun 2017	6	74.833	Y		Jun 2011
1.2) AN/SMQ-11 Satellite Receiver Upgrade Kit		2015	Raytheon / Indianapolis.	C / CPFF	SPAWAR	Feb 2015	Jun 2015	1	53.000	Υ		Jun 2011
1.2) AN/SMQ-11 Satellite Receiver Upgrade Kit		2017	Raytheon / Indianapolis.	C / CPFF	SPAWAR	Feb 2017	Jun 2017	9	54.100	Y		Jun 2011
1.3) AN/FMQ-17 Antenna Positioner Upgrade Kit		2016	Raytheon / Indianapolis	C / CPFF	SPAWAR	Feb 2016	Jun 2016	1	245.000	Y		Jun 2011
1.4) AN/SMQ-11 Antenna Pedestal Upgrade Kit		2015	Raytheon / Indianapolis.	C / CPFF	SPAWAR	Feb 2015	Jun 2015	3	189.667	Υ		Jun 2011
1.4) AN/SMQ-11 Antenna Pedestal Upgrade Kit		2016	Raytheon / Indianapolis	C / CPFF	SPAWAR	Feb 2016	Jun 2016	4	193.500	Υ		Jun 2011
1.4) AN/SMQ-11 Antenna Pedestal Upgrade Kit		2017	Raytheon / Indianapolis	C / CPFF	SPAWAR	Feb 2017	Jun 2017	6	197.333	Y		Jun 2011
) SP400 METOC Satellite Data Explo	itatio	on Readine	ess									
3.1) FNMOC Upgrades		2015	VARIOUS / VARIOUS	C / FFP	SPAWAR	Apr 2015	May 2015	1	2,113.000	Υ		
3.1) FNMOC Upgrades		2016 <sup>(7)</sup>	UNKNOWN / UNKNOWN	C / FFP	SPAWAR	May 2016	Jun 2016	1	1,114.000	Υ		
3.2) NAVOCEANO Upgrades		2015	VARIOUS / VARIOUS	C / FFP	SPAWAR	Apr 2015	Jun 2015	1	1,382.000	Υ		
3.2) NAVOCEANO Upgrades		2016 <sup>(8)</sup>	UNKNOWN / UNKNOWN	C / FFP	SPAWAR	May 2016	Jun 2016	1	902.000	Υ		
) SP550 METOC SASC Upgrades												,
4.1) ASOS Upgrades (3)		2015	National Weather Service (NWS) / N	ID MIPR	NWS	Dec 2014	Apr 2015	82	34.037	Υ		
4.1) ASOS Upgrades (3)		2016	National Weather Service (NWS) / N	ID MIPR	NWS	Dec 2015	Apr 2016	50	55.880	Υ		
4.1) ASOS Upgrades (3)		2017	National Weather Service (NWS) / N	ID MIPR	NWS	Dec 2016	Apr 2017	48	48.771	Υ		
4.2) SWR Upgrades (4)		2015	Enterprise Electronics Corp. / AL	C/FP	SSC LANT	Dec 2014	May 2015	17	60.647	Υ		Nov 2010
4.2) SWR Upgrades (4)		2016	Enterprise Electronics Corp. / AL	C/FP	SSC LANT	Dec 2015	May 2016	16	51.000	Y		Nov 2010
4.2) SWR Upgrades (4)		2017	Enterprise Electronics Corp. / AL	C/FP	SSC LANT	Dec 2016	May 2017	15	58.533	Υ		Nov 2010
) SP600 Littoral Battlespace Sensor	s - U	nmanned	Undersea Vehicles (LBS-UUV)	,								
5.1) Littoral Battlespace Sensors - Gliders (LBS-G)		2016	Teledyne Brown Eng / AL	C / CPIF	SPAWAR	Mar 2016	Feb 2017	23	198.000	Υ		Apr 2008

Exhibit P-5a, Procurement History and Planning: PB 2017 Navy Date: February 2016 Appropriation / Budget Activity / Budget Sub Activity: P-1 Line Item Number / Title: Aggregated Items: 1810N / 03 / 3 Meteorological Equipment 4226 / Meteorological Equipment

10.0.1.00.0					qp				J. J	- 40b		
Item Number / Title [DODIC]	0 0	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
5.1) Littoral Battlespace Sensors - Gliders (LBS-G)		2017	Teledyne Brown Eng / AL	C / CPIF	SPAWAR	Mar 2017	Feb 2018	20	200.000	Y		Apr 2008
5.2) Littoral Battlespace Sensors - Autonomous Undersea Vehicles (LBS-AUV)		2015	Hydroid, Inc. / MA.	C / FFP	SPAWAR	Feb 2015	Jan 2016	1	2,600.000	Y		Oct 2009
5.3) Autonomous Undersea Vehicles (Submarine) AUV(S)		2017 <sup>(9)</sup>	Hydroid, Inc / MA	C / FFP	SPAWAR	Jan 2017	Jul 2018	4	2,060.000	N	Jan 2017	
5.5) Autonomous Undersea Vehicles (Submarine) - AUV(S) Shipset v1		2017	Hydroid, Inc. / MA	C / CPFF	SPAWAR	Jan 2017	Jul 2018	3	3,030.000	N	Jan 2017	
10) SP190 TESS/NITES												
10.1) Mobile Tactical System		2016	UNKNOWN / UNKNOWN	C/FP	SSC PAC	Mar 2016	Jul 2016	457	4.867	Y		Dec 2015
10.2) Hardware Components		2016	Unkown / Unknown	C / FP	SSC PAC	Mar 2016	Jul 2016	154	1.007	N	Mar 2016	Dec 2015

#### Footnotes:

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<sup>(7)</sup> The vendors for equipment and software for FNMOC super computer systems include Dell, McAfee, Mellanox, NetApp, Red Hat ESI, IBM ESI.

<sup>(8)</sup> The vendors for equipment and software for NAVOCEANO super computer systems include Panasas, Cisco 8a, Dell 8a, Red Hat ESI, Oracle ESI.

<sup>(9)</sup> LBS AUV(S) delivery of first unit will have an 18 month lead time from date of award.

Exhibit P-40, Budget Line Item Justification: PB 2017 Navv

P-1 Line Item Number / Title:

Date: February 2016

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4242 / DCRS/DPL

Aircraft 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

Appropriation / Budget Activity / Budget Sub Activity:

Line Item MDAP/MAIS Code: N/A	Item MD	AP/MAIS Cod	<b>e(s):</b> N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	95.735	1.415	0.638	0.632	-	0.632	0.656	0.668	0.689	0.705	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	=	-	=	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	95.735	1.415	0.638	0.632	-	0.632	0.656	0.668	0.689	0.705	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	95.735	1.415	0.638	0.632	-	0.632	0.656	0.668	0.689	0.705	Continuing	Continuing
(The following	Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	0.126	0.142	0.155	-	0.155	0.083	0.044	-	-	-	0.550
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

## **Description:**

Digital Camera Receiving Station/Afloat Multi-Media Production System (DCRS/AMMPS) 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). In FY 2013, AMMPS transitioned to the Naval Sea Systems Command and FY 2015 was the last year of funding for AMMPS in this budaet.

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 one 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).

Afloat Multimedia Production System (AMMPS) - is an afloat multimedia production capability for surface forces. It is an unclassified system used to ensure National Command Authority, DoD, Joint and Navy commanders, the Carrier Strike Group (CSG), Expeditionary Strike Group (ESG), and Amphibious Ready Group (ARG) are provided with mission essential media products. The system processes information for incidents and accidents at sea, shipboard investigations, medical records, combat camera, safety, training, and Public Affairs Office functions and produces media of real world events (e.g. drug interdiction programs, humanitarian relief efforts, shipboard and flight operations) viewed by the CNO, Secretary of the Navy, Joint Chiefs of Staff, National Military Command Center, and the White House. Digital imagery can be quickly disseminated via shipboard communication systems to support decision makers at all levels. It comprises seven public affairs production subsystems providing media services to the crew, their families and external customers.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4242 / DCRS/DPL

Aircraft Support Equipment

=quipinion(7 Bo7 t o. | 12 12 7 Bo1 to7 B

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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			<b>Prior Years</b>	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
P-40a	DCRS/AMMPS			- / 95.735	- / 1.415	- / 0.638	- / 0.632	- / -	- / 0.632
P-40	Total Gross/Weapon System Cost			- / 95.735	- /1.415	- / 0.638	- / 0.632	- 1 -	- / 0.632

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

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

#### Justification:

The FY 2017 funding request was reduced by \$25 thousand as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY 2017 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.

LI 4242 - DCRS/DPL

Navy

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P-1 Line #107

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4242 / DCRS/DPL

DCRS/AMMPS

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			Р	rior Years	3		FY 2015			FY 2016		FΥ	′ 2017 Bas	se	FY	/ 2017 OC	ю	FY	/ 2017 Tot	al
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	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) DCRS/DPL																				
1.1) SX020 Afloat Multi-Media Production System Workcenter <sup>(1)</sup>	A		141,157.89	76	10.728	133,000.00	3	0.399	-	-	-	-	-	-	-	-	-	-	-	-
1.2) SX021 Digital SLR Color Camera	А		16,347.31	167	2.730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) SX100 Digital Camera Receiving Station <sup>(2)</sup>	А		164,231.88	69	11.332	155,333.33	3	0.466	158,333.33	3	0.475	153,666.67	3	0.461	-	-	-	153,666.67	3	0.461
1.4) AMMPS Other Costs	Α		-	-	31.894	-	-	0.250	-	-	-	-	-	-	-	-	-	-	-	-
1.5) DCRS Other Costs	А		-	-	39.051	-	-	0.300	-	-	0.163	-	-	0.171	-	-	-	-	-	0.171
Subtotal: 1) DCRS/DPL			-	-	95.735	-	-	1.415	-	-	0.638	-	-	0.632	-	-	-	-	-	0.632
Total			-	-	95.735	-	-	1.415	-	-	0.638	-	-	0.632	-	-	-	-	-	0.632

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

#### Footnotes:

 LI 4242 - DCRS/DPL
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<sup>(1)</sup> AMMPS was formerly known as Digital Photo Lab (DPL) and FY 2015 was the last year of funding.

<sup>(2)</sup> The DCRS unit cost increases in FY18 and out are due to procuring two unique configurations; one rack assembly (Nimitz class) and two rack assembly (Ford class).



Exhibit P-40, Budget Line Item Justification: PB 2017 Navv

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4248 / Aviation Mine Countermeasures

Date: February 2016

Aircraft Support Equipment

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

Program Elements for Code B Items: N/A Other Related Program Elements: 0604373N

Line Item MDAP/MAIS Code: N/A	Item MD	AP/MAIS Cod	<b>e(s):</b> N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	412.217	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	412.217	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	412.217	23.152	14.098	29.097	-	29.097	24.491	8.362	5.004	5.104	0.003	521.528
(The following	g Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	8.142	1.368	0.486	-	0.486	0.500	0.247	-	-	-	10.743
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

### **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 minelike 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 is 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.

AN/ASQ-235 - Airborne Mine Neutralization System (AMNS) is 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: LCS Mission Modules are procured under BLI 1601.

AN/AES-1 Airborne Laser Mine Detection System (ALMDS) is 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.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

Date: February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4248 / Aviation Mine Countermeasures

Aircraft Support Equipment

Program Elements for Code B Items: N/A

Other Related Program Elements: 0604373N

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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule			Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)					
P-5	1 / MODIFICATIONS			- /71.622	- /3.628	- / 3.227	- / 4.843	- / -	- / 4.843
P-5	2 / AN/AQS-24 Sonar	P-5a, P-21		- / 42.500	- / 19.524	- / 1.771	- / 18.819	- / -	- / 18.819
P-5	3 / MK-105	P-5a, P-21		- /20.000	- / -	- / -	- / -	- / -	- / -
P-5	4 / AMNS	P-5a, P-21		- / 56.582	- / -	- / 6.800	- / 5.435	- / -	- / 5.435
P-5	5 / ALMDS [ALMDS]	P-5a, P-21		- / 106.419	- / -	- / 2.300	- / -	- / -	- / -
P-5	6 / OAMCM [OAMCM]	P-5a, P-21		- / 115.094	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 412.217	- / 23.152	- /14.098	- / 29.097	- 1 -	- / 29.097

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

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

#### Justification:

The FY 2017 funding request was reduced by \$1.3 million as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY 2017 funding supports the baseline program which will procure eight AN/AQS-24 C upgrade kits and hardware and software upgrades for the Airborne Mine Neutralization System (AMNS) and the Airborne Laser Mine Detection System (ALMDS). Airborne Mine Countermeasures program will be fielding in FY 2017. This capability will be deployed around the world to meet the current operational mine warfare mission demand for these systems.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
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):		ME	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	71.622	3.628	3.227	4.843	-	4.843
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	71.622	3.628	3.227	4.843	-	4.843
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	71.622	3.628	3.227	4.843	-	4.843
(The following Resource Summary rows are for information	onal purposes only. The con	responding budget request	s are documented elsewher	e.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	F	Prior Years	s		FY 2015			FY 2016		FY	/ 2017 Bas	se	FY 2017 OCO			FY 2017 Total		
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware - S0020 MODIFICA	ATIONS Cost					,				'			'			'		
Recurring Cost																		
1.1.1) S0020 - MODIFICATION	-	-	71.622	-	-	3.628	-	-	3.227	-	-	4.843	-	-	-	-	-	4.84
Subtotal: Recurring Cost	-	-	71.622	-	-	3.628	-	-	3.227	-	-	4.843	-	-	-	-	-	4.84
Subtotal: Hardware - S0020 MODIFICATIONS Cost	-	-	71.622	-	-	3.628	-	-	3.227	-	-	4.843	-	-	-	-	-	4.84
Gross/Weapon System Cost	-	-	71.622	-	-	3.628	-	-	3.227	-	-	4.843	-	-	-	-	-	4.84

Exhibit P-5, Cost Analysis: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Date: February 2016

Item Number / Title [DODIC]:

2 / AN/AQS-24 Sonar

ID Code (A=Service Ready, B=Not Service Ready):		ME	OAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	<b>FY 2017 Base</b>	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	42.500	19.524	1.771	18.819	-	18.819
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	42.500	19.524	1.771	18.819	-	18.819
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	42.500	19.524	1.771	18.819	-	18.819
(The following Resource Summary rows are for information	onal purposes only. The corr	esponding budget requests	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	F	Prior Years	6		FY 2015			FY 2016		FY	/ 2017 Ba	se	F'	Y 2017 OC	0	F'	Y 2017 Tot	al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	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-2	4 Sonar Cost																	
Recurring Cost																		
1.1.2) AN/AQS-24B - upgrade kit <sup>(†)</sup>	2,115K	20	42.300	2,157K	7	15.100	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) AN/AQS-24C - Upgrade kit <sup>(†)</sup>	-	-	0.000	-	-	-	-	-	-	2,352K	8	18.819	-	-	-	2,352K	8	18.81
1.1.4) Training Equipment <sup>(†)</sup>	-	-	0.200	4,424K	1	4.424	-	-	1.296	-	-	-	-	-	-	-	-	-
1.1.5) ILS/Tech Pubs	-	-	0.000	-	-	-	-	-	0.475	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	42.500	-	-	19.524	-	-	1.771	-	-	18.819	-	-	-	-	-	18.81
Subtotal: Hardware - S0024 AN/AQS-24 Sonar Cost	-	-	42.500	-	-	19.524	-	-	1.771	-	-	18.819	-	-	-	-	-	18.81
Gross/Weapon System Cost	-	-	42.500	-	-	19.524	-	-	1.771	-	-	18.819	-	-	-	-	-	18.81

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2017	Navy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	2 / AN/AQS-24 Sonar

	0 C			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
1.1.2) AN/AQS-24B - upgrade kit <sup>(†)</sup>		2014	Northrop Grumman (Annapolis, MD) / Annapolis	SS / FFP	NSWC PC	Jun 2014	Jun 2015	20	2,115K	Y		
1.1.2) AN/AQS-24B - upgrade kit <sup>(†)</sup>		2015	Northrop Grumman (Annapolis, MD) / Annapolis	SS / FFP	NSWC PC	Jun 2015	Jun 2016	7	2,157K	Υ		
1.1.3) AN/AQS-24C - Upgrade kit <sup>(†)</sup>		2017	Northrop Grumman (Annapolis, MD) / Annapolis	C / FFP	NAVSEA	Mar 2017	Mar 2018	8	2,352K	Υ		
1.1.4) Training Equipment <sup>(†)</sup>		2015	Northrop Grumman (Annapolis, MD) / Annapolis	SS / FFP	NSWC PC	Jun 2015	Jun 2016	1	4,424K	Y		

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

Ex	hib	it P	-21, Pro	ducti	on Sc	hedul	le: PE	3 201	7 Nav	/y														Date	: Feb	ruary	2016				
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1.1.	2) AN	N/AQS	-24B - upgrad	de kit									,	,					,						,						
	1 2	2014	NAVY	20	-	20		_						-	Α -	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	1:
	1 2	2015	NAVY	7	-	7													·					,			A -	-	-	-	
1.1.	3) AN	V/AQS	-24C - Upgra	de kit																											
	2 2	2017	NAVY	8	-	8																									
1.1.	4) Tra	aining	Equipment																												
	3 2	2015	NAVY	1	-	1																					A -	-	-	-	
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1.1	.2) Al	N/AQS	S-24B - upgra	ide kit								'						,		_											
	1 2	2014	NAVY	20	8	12	2	2	2	2	2	2																			-
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1.1	.2) Al	N/AQS	S-24B - upgra	ade kit																											
	1 2	2014	NAVY	20	20	-																									Т
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1.1	.3) Al	N/AQS	S-24C - Upgr	ade kit																											
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1.1	.4) Tr	aining	Equipment																												
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Exhibit P-21, Production Schedule: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:

4248 / Aviation Mine Countermeasures

Date: February 2016

Item Number / Title [DODIC]:

2 / AN/AQS-24 Sonar

		Produ	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MF	٦ ا					Ini	tial			Rec	order	
Re #		MSR For 2017	1-8-5 For 2017	MAX For 2017	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
	Northrop Grumman (Annapolis, MD) - Annapolis	-	-	-	-	-	12	12	-	-	12	12
	Northrop Grumman (Annapolis, MD) - Annapolis	3	5	18	-	-	12	12	-	-	12	12
	Northrop Grumman (Annapolis, MD) - Annapolis	-	-	-	-	-	12	12	-	-	-	-

<sup>&</sup>quot;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 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).

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 1810N / 03 / 3		m Number / Title: ion Mine Counterm			n Number / Title [D MK-105	ODIC]:
ID Code (A=Service Ready, B=Not Service Ready):		ME	AP/MAIS Code:	·		
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	20.000	-	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	20.000	-	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	20.000	-	-	-	-	-
(The following Resource Summary rows are for information	al purposes only. The corr	esponding budget requests	are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Exhibit P-5, Cost Analysis: PB 2017 Navy

	F	Prior Years	5		FY 2015			FY 2016		FY	/ 2017 Ba	se	FY	/ 2017 OC	0	FY	/ 2017 Tot	al
Cost Elements	Unit Cost	Qty (Each)	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 I	MOD 4 Cost																	
Recurring Cost																		
1.1.1) MK-105 MOD 4 <sup>(†)</sup>	16,600K	1	16.600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) Production Line Set-Up	-	-	3.400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	20.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - S0061 - MK-105 MOD 4 Cost	-	-	20.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	20.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

Date: February 2016

Exhibit P-5a, Procurement History and Planning: PB 2017	lavy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:		Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	3 / MK-105

	0			Method/Type			Date			Specs	Date	
	С			or		Award	of First	Qty	Unit Cost	Avail	Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
1.1.1) MK-105 MOD 4 <sup>(†)</sup>		2012	ITT / Panama City, Florida	C / FFP	NSWC PC	Mar 2013	Sep 2014	1	16,600K	Y		Jul 2011

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

ibit F	P-21, Pro	oduct	ion Sc	hedu	le: PE	3 201	7 Nav	/y														Date	: Feb	oruary	/ 2016	6			
_		Budg	et Acti	vity /	Budg	get Sı	ub Ac	tivity	:		_		-				res								Title	[DOI	DIC]:		
									,	Fiscal Y	ear 2013	1										Fiscal Y	ear 2014						ВА
												(	Calendar	Year 201	3								Caler	ıdar Yeaı	r 2014				L
FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	n n	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	A N C E
MK-105	MOD 4																	,				,				,			
2012	NAVY	1	-	1		_				Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	_
					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	J U L	A U G	S E P	0 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 J	A U G	S E P	
•	FY MK-105	Propriation / ON / 03 / 3  Cost E (Units	Cost Elements (Units in Each)  FY SERVICE PROC QTY  MK-105 MOD 4	Cost Elements (Units in Each)  Cost Elements (Units in Each)  ACCEPT PRIOR TO 1 OCT TO 1 OCT 2012  MK-105 MOD 4	Cost Elements (Units in Each)  Cost Elements (Units in Each)  ACCEPT PRIOR DUE TO 1 DUE OCT AS OF 1 OC	Cost Elements	Cost Elements (Units in Each)	Cost Elements	ON / 03 / 3    Cost Elements (Units in Each)	Cost Elements (Units in Each)	P-1   PROC   OCT   AS OF   C   O   E   A   E   A   A   C   O   N   D   J   F   M   R   C   O   N   D   J   F   M   A   C   O   C   O   E   A   E   A   C   C   O   E   A   E   A   C   C   O   E   A   E   A   C   C   O   C	P-1 Line	P-1 Line Item A 248 / Aviation    Cost Elements (Units in Each)	P-1 Line Item Num	P-1 Line Item Number /	P-1 Line Item Number / Title:   4248 / Aviation Mine Counterm   4248 / Aviation Mine Counter	P-1 Line Item Number / Title:	P-1 Line Item Number / Title:	P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures    Cost Elements (Units in Each)	P-1 Line Item Number / Title:    A248	P-1 Line Item Number / Title:  4248 / Aviation Mine Countermeasures    Cost Elements (Units in Each)	P-1 Line Item Number / Title: 4248 / Aviation Mine Countermeasures    Cost Elements (Units in Each)	Cost Elements	P-1 Line Item Number / Title:   Item Number   Title:   3 / MK-10	P-1 Line Item Number / Title:   3 / MK-105				

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	3 / MK-105

		Produ	ction Rates (Each	/ Year)				Procurement Lea	adtime (Months)			
MFF	R					lni	tial			Reo	rder	
Ref		MSR For 2017	1-8-5 For 2017	MAX For 2017	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 ITT - Panama City, Florida	1	3	6	-	-	18	18	-	-	18	18

<sup>&</sup>quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4248 / Aviation Mine Countermeasures

1810N / 03 / 3

ID Code (A=Service Ready, B=Not Service Ready):		r	MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	56.582	-	6.800	5.435	-	5.435
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	56.582	-	6.800	5.435	-	5.435
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	56.582	-	6.800	5.435	-	5.435
(The following Resource Summary rows are for infor	mational purposes only. The corr	responding budget reque	ests are documented elsewhe	re.)		3
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	_	_	_	_	_	_

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	F	Prior Years	3		FY 2015			FY 2016		FY	/ 2017 Ba	se	F'	/ 2017 OC	0	F	/ 2017 Tot	:al
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)									
Hardware - S0065 - AMNS C	ost																	
Recurring Cost	_																	
1.1.1) AMNS <sup>(†)</sup>	2,116K	17	35.965	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) AMNS (MH-53E)	-	-	3.860	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) PRODUCTION ENGINEERING	-	-	2.587	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.5) TRAINING EQUIPMENT	-	-	4.967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.6) ILS/PUBS/ TECH DATA	-	-	2.089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.7) SUPPORT EQUIPMENT	-	-	7.114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.8) ECP (HW/SW) and Upgrades	-	-	0.000	-	-	-	-	-	6.800	-	-	5.435	-	-	-	-	-	5.435
Subtotal: Recurring Cost	-	-	56.582	-	-	-	-	-	6.800	-	-	5.435	-	-	-	-	-	5.43
Subtotal: Hardware - S0065 - AMNS Cost	-	-	56.582	-	-	-	-	-	6.800	-	-	5.435	-	-	-	-	-	5.43
Gross/Weapon System Cost	-	-	56.582	-	-	-	-	-	6.800	-	-	5.435	-	-	-	-	-	5.435

<sup>(†)</sup> indicates the presence of a P-5a

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Page 14 of 32

Exhibit P-5a, Procurement History and Planning: PB 2017	Navy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	4 / AMNS

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
1.1.1) AMNS <sup>(†)</sup>		2009	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	Sep 2010	Feb 2012	4	2,225K	Υ		
1.1.1) AMNS <sup>(†)</sup>		2010	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	Jan 2011	Jun 2012	2	2,250K	Y		Apr 2010
1.1.1) AMNS <sup>(†)</sup>		2011	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	Jun 2011	Nov 2012	4	2,243K	Y		
1.1.1) AMNS <sup>(†)</sup>		2012	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	Jun 2012	Nov 2013	1	2,261K	Y		
1.1.1) AMNS <sup>(†)</sup>		2013	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	Mar 2014	Aug 2015	1	2,256K	Y		
1.1.1) AMNS <sup>(†)</sup>		2014	Raytheon / Portsmouth, RI	SS / FFP	NAVSEA	May 2014	Oct 2015	2	2,241K	Y		

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

-//	bit P	-21, Pro	oducti	on Sc	hedu	le: PE	3 201	7 Nav	'y														Date	: Feb	ruary	2016	;			
		i <b>ation</b> / 1 03 / 3	Budge	et Acti	vity /	Budg	jet Sı	ıb Ac	tivity	<b>':</b>					i <b>ber</b> / e Cou			res						Num MNS		Title	[DOE	OIC]:		
			lements in Each)								Fiscal Y	ear 2010											Fiscal Ye	ar 2011						В
				ACCEPT									(	Calendar	Year 201	0								Calen	dar Year	2011				Ĺ
O F C R O #	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2009	BAL DUE AS OF 1 OCT	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	n 1	A U G	S E P	0 C T	A 0 W	D E C	J A N	F E B	M A R	A P R	M A Y	N N C	J J	A U G	S E P	N C E
1.1.1) A	AMNS																		,					,						
Prior Ye	ears De	liveries: 3																												
1	2009	NAVY	4	-	4												Α -	-	-	-	-	-	-	-	-	-	-	-	-	
1	2010	NAVY	2	-	2																Α -	-	-	-	-	-	-	-	-	
1	2011	NAVY	4	-	4																					Α -	-	-	-	
1	2012	NAVY	1	-	1																									
1	2013	NAVY	1	-	1																									
1	2014	NAVY	2	-	2			,						,																<u> </u>
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J 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	U U	A U G	S E P	

E	khi	bit P	-21, Pro	oducti	on Sc	hedul	le: PE	3 201	7 Nav	'y														Date	: Feb	ruary	2016	<u> </u>			
			<b>ation</b> / 1 03 / 3	Budge	et Acti	vity /	Budg	jet Sı	ub Ac	tivity	<b>'</b> :		<b>Line</b> 18 / A						res					Item 4 / A			Title	[DOE	DIC]:		
			Cost El (Units i	ements n Each)								Fiscal Y	ear 2012											Fiscal Ye	ar 2013						-
					ACCEPT									(	Calendar	Year 201	2								Calen	dar Year	2013				] [
0 C 0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J J	A U G	S E P	O C T	N O V	D E C	J A N	FEB	M A R	A P R	M A Y	J U	r c c	A U G	S E P	
1.1	1.1)	AMNS																				,									
Pri	ior Y	ears De	liveries: 3																												_
	1	2009	NAVY	4	-	4	-	-	-	-	1	-	1	-	1	-	1														
	1	2010	NAVY	2	-	2	-	-	-	-	-	-	-	-	1	-	1														
	1	2011	NAVY	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1					
	1	2012	NAVY	1	-	1									Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1	2013	NAVY	1	-	1																									$\perp$
	1	2014	NAVY	2	-	2																									$\perp$
							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	U U	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	N U	U U	A U G	S E P	

													UN	ICL/	ASSI	FIED	)												
Exh	ibit	P-21, Pr	oducti	ion Sc	hedul	e: PB	201	7 Nav	/y														Date	: Feb	ruary	/ 2016	3		
		riation / 03 / 3	Budge	et Acti	vity /	Budg	et Su	ıb Ac	tivity	:		<b>1 Line</b> 48 / A		-			neasu	res						Num MNS		Title	[DOI	DIC]:	
			lements in Each)								Fiscal \	Year 2014	1	,	,								Fiscal Y	ear 2015				,	
				ACCEPT									(	Calenda	Year 20	14								Calen	dar Yea	r 2015			
O F		SERVICE	PROC QTY	PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	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	J	A U G	чв	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	JUN	J U	A U G	S E P
	) AMNS																												
Prior	Years [	Deliveries: 3																											
1	2009	NAVY	4	4	-																								
1		NAVY	2	2	-																								
1		NAVY	4	4	-			1																					-
1	_	NAVY	1	-	1	-	1									1													-
1		NAVY	1	-	1						Α -	-	-	-	-	-	-	-	-	-	-		-	-		-	-	1	
1	2014	NAVY	2	-	2	0	N	D		F	М	Α	A -	J	J	- A	S	0	- N	- D	- J	F	- М	- A	- М	-	-	- A	- S
						C T	0 V	E C	A N	E B	A R	P R	A Y	U	Ü	Ü	E P	C T	0 V	E C	A N	E B	A R	P R	A Y	U	Ü	Ü	E P

Ext	hik	bit P	2-21, Pro	oducti	on Sc	hedul	e: PE	2017	<sup>7</sup> Nav	/y														Date	e: Feb	ruary	2016	3			
			i <b>ation</b> / 1 03 / 3	Budge	t Activ	vity /	Budg	et Su	ıb Ac	tivity	<b>':</b>			Item viatio				neasu	res						Nun AMNS		Title	[DOI	DIC]:		
				ements n Each)								Fiscal Y	ear 2016	1										Fiscal Y	ear 2017						E
	м				ACCEPT PRIOR	BAL								(	Calendar	Year 20	16		1	1					Caler	dar Yea	r 2017				L
O F C F O #	F R	FY	SERVICE	PROC QTY	TO 1 OCT	DUE AS OF 1 OCT	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	A U G	S E P	N C
		MNS					·											,													
Prior	_		NAVY	4	4	-																									1
1			NAVY	2	2																										
1	_		NAVY	4	4	-																									
1	-		NAVY	1	1	-																									
1	1 :	2013	NAVY	1	1	-																									
1	1	2014	NAVY	2	-	2	1	1																							
							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	J U	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	N N J	n n	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
1,1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,		Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	4 / AMNS

		Produ	ction Rates (Each	/ Year)			•	Procurement Le	adtime (Months)			
MFR						lni	tial			Reo	rder	
Ref	Manufacturer				ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	MSR For 2017	1-8-5 For 2017	MAX For 2017	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	After Oct 1
1	Raytheon - Portsmouth, RI	1	8	24	-	-	17	17	-	-	17	17

<sup>&</sup>quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
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:	, , , , , , , , , , , , , , , , , , , ,

ID Code (A=Service Ready, B=Not Service Ready):			MDAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-			-	-	-
Gross/Weapon System Cost (\$ in Millions)	106.419		- 2.300	-	-	-
Less PY Advance Procurement (\$ in Millions)	-			-	-	-
Net Procurement (P-1) (\$ in Millions)	106.419		- 2.300	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-			-	-	-
Total Obligation Authority (\$ in Millions)	106.419		- 2.300	-	-	-
(The following Resource Summary rows are for information	ational purposes only. The corr	responding budget requ	ests are documented elsewhe	re.)		
Initial Spares (\$ in Millions)	-			-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-			-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	F	Prior Years	•		FY 2015			FY 2016		F	1 2017 Ba	se	F	Y 2017 OC	0	F	/ 2017 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)															
Hardware - S0075 - ALMDS 0	Cost					'	'	'				'				'		
Recurring Cost																		
1.1.1) ALMDS <sup>(†)</sup>	7,354K	12	88.247	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) PRODUCTION ENGINEERING	-	-	8.776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) PRODUCTION ECP (HW/SW)	-	-	5.235	-	-	-	-	-	2.300	-	-	-	-	-	-	-	-	-
1.1.4) TRAINING EQUIPMENT	-	-	0.976	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.5) ILS/PUBS/ TECH DATA	-	-	2.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.6) SUPPORT EQUIPMENT	-	-	0.756	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	106.419	-	-	-	-	-	2.300	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - S0075 - ALMDS Cost	-	-	106.419	-	-	-	-	-	2.300	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	106.419	-	-	-	-	-	2.300	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

Exhibit P-5a, Procurement History and Planning: PB 2017	lavy	Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:				
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	5 / ALMDS [ALMDS]				

Cost Elements	0 0	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) ALMDS <sup>(†)</sup>		2010	Northrop Grumman / Melborn, FL	SS / FFP	NSWC PC	Sep 2010	Mar 2012	3	7,159K	Υ		Dec 2008
1.1.1) ALMDS <sup>(†)</sup>		2011	Northrop Grumman / Melborn, FL	SS / FFP	NSWC PC	Mar 2012	Sep 2013	2	7,100K	Υ		Oct 2011
1.1.1) ALMDS <sup>(†)</sup>		2013	Northrop Grumman / Melborn, FL	C / FFP	NAVSEA	Jun 2013	Feb 2015	4	7,338K	Υ		Mar 2012
1.1.1) ALMDS <sup>(†)</sup>		2014	Northrop Grumman / Melborn, FL	C / FFP	NAVSEA	Dec 2014	Aug 2016	1	7,900K	Υ		Mar 2013

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

		IL I -Z I	, Prod	ductio	on Sc	hedul	e: PE	3 201	7 Nav	/y														Date	: Feb	ruary	2016	3			
		priatio		udge	t Acti	vity /	Budg	jet Si	ub Ac	tivity	<b>':</b>		<b>Line</b> 18 / A		-				res	_						nber / S [ALI			DIC]:		
			Cost Elem (Units in E									Fiscal Y	ear 2010											Fiscal Y	ear 2011						В
					ACCEPT									C	Calendar	Year 201	0								Calen	dar Year	2011				Ĺ
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1.1.1)	ALI	MDS																													
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1	20	011 NAVY	Y	2	-	2																									
1	20	013 NAVY	Y	4	-	4																									
1	20	014 NAVY	Y	1	-	1																									
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	J 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	D D	A U G	S E P	

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Ex	hil	bit l	P-21, Pro	oduct	ion Sc	hedu	le: P	3 201	17 Nav	/y														Date	: Feb	oruary	2016	;			
			riation / 03 / 3	Budge	et Acti	vity /	Bud	get S	ub A	ctivity	<b>'</b> :			ltem				neasu	res							n <b>ber</b> / S [ALI		-	OIC]:		
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					ACCEPT									(	Calendar	Year 20	12								Caler	ndar Year	r 2013				L
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1.1.	1) A	LMD	S		<u> </u>																,										
Pric	r Ye	ears D	Deliveries: 2																												
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	1	2011	NAVY	2	-	2						Α -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	<u> </u>
_	_		NAVY	4	-	4		_																			A -	-	-	-	<u> </u>
	1	2014	NAVY	1	-	1									,				,												<u> </u>
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N U	J 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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Ext	nibit F	P-21, Pro	oducti	on Sc	hedul	le: PE	3 201	7 Nav	/y														Date	: Feb	ruary	2016	3		
		iation / 1 03 / 3	Budge	et Acti	vity /	Budg	jet Sı	ub Ac	tivity	:			Item viation					res						Num LMDS			[DOI	DIC]:	
			lements in Each)								Fiscal Y	ear 2014	ļ										Fiscal Ye	ar 2015			,		
				ACCEPT PRIOR	BAL								C	alendar	Year 20	14								Calen	dar Year	2015			
O F	1	SERVICE	PROC QTY	TO 1 OCT 2013	DUE AS OF 1 OCT	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	) ALMDS	1	-																					'					
Prior	Years De	eliveries: 2																											
_ 1	2010	NAVY	3	3	-																								
1	2011	NAVY	2	1	1	-	1						,	,															,
1	+	NAVY	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	
1	2014	NAVY	1	-	1														1	Α -	-	-	-	-	-	-	-	-	-
						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	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	N U	J L	A U G	S E P

Date: February 2016													UN	ICL/	ASSI	FIED	)												
1810N / 03 / 3    4248 / Aviation Mine Countermeasures   5 / ALMDS [ALMDS]	Exhibit	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 201	7 Nav	/y														Date	e: Feb	oruary	2016	3		
N			Budge	et Acti	vity /	Budg	jet Si	ub Ac	tivity	:								res										DIC]:	
N											Fiscal \	ear 2016	1										Fiscal Y	ear 2017					
0 F FY SERVICE PROC OCT AS OF C O DE A E A E A P A U U U U E E C O E A E A E A P A U U U U E E C O E A E A E A P A U U U U E E C O E A E A E A P A U U U U E E C O E A E A E A P A U U U U U E E C O E A E A E A P A U U U U U E E C O E A E A E A P A U U U U U E E C O E A E A E A P A U U U U U E E C O E A E A E A P A U U U U E E C O E A E A E A P A U U U U E E C O E A E A E A P A U U U U E E C O E E A E A E A P A U U U U E E C O E E A E A E A P A U U U U E E C O E E A E A E A P A U U U U E E C O E E A E A E A P A U U U U E E C O E E A E A E A P A U U U U E E C O E E A E E A P A U U U U E E C E C O E E A E E A E A E A P A U U U U E E C E C O E E A E E A E A E A E A E A E A E A E													C	alendar	Year 20	16								Caler	dar Yea	2017			
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1 2010 NAVY 3 3 3 - 1 2011 NAVY 2 2 2 - 1 2013 NAVY 4 4 - 1 2014 NAVY 1 - 1 - 1 1  O N D J F M A M J J A S O N D J F M A M J U U U E C O E A E A P A U U U E E	1.1.1) ALMD	os		1																									
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1 2013 NAVY 4 4 - 1 1 2014 NAVY 1 - 1 - 1 1  O N D J F M A M J J A S O N D J F M A M J U U U E C O E A E A P A U U U E	1 2010	NAVY	3	3	-																								
1 2014 NAVY 1 - 1 1  O N D J F M A M J J A S O N D J F M A M J J A S C O E A E A P A U U U E E C O E A E A P A U U U E E C O E A E A P A U U U E E C O E A E A P A U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U E E C O E A E A P A U U U U U U U E E C O E A E A P A U U U U U U U E E C O E A E A P A U U U U U U U U E E C O E A E A P A U U U U U U U U U E C O E A E A P A U U U U U U U U U U U U U U U U U	1 2011	1 NAVY	2	2	-																								
O N D J F M A M J J A S O N D J F M A M J J A S C O E A E A P A U U E			4	4	-			1	1			,					7												
C   O   E   A   E   A   P   A   U   U   E   C   O   E   A   E   A   P   A   U   U   E	1 2014	4 NAVY	1	-	1			-	-			-		-	-	1													1
						С	0		J A N				Α	J U N	U L		E	С	0	D E C					Α		J U L		

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	5 / ALMDS [ALMDS]

		Produ	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFI	٦ ا					Ini	tial			Red	rder	
Re		MSR For 2017	1-8-5 For 2017	MAX For 2017	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
	Northrop Grumman -     Melborn, FL	1	12	24	-	-	20	20	-	-	18	18

<sup>&</sup>quot;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 999,999,999 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-5, Cost	Analysis	s: PB 20	17 Navy	′										Date: Fe	ebruary 2	2016		
<b>Appropriation / B</b> 1810N / 03 / 3	udget A	ctivity / I	Budget	Sub Act	ivity:	I	Line Iten 3 / Aviatio			: neasures	;				mber / 1 CM [OA		DIC]:	
ID Code (A=Service Read	ly, B=Not Servi	ice Ready):				·			М	DAP/MAIS	Code:							
F	Resource	Summa	arv			Prior Ye	ars	FY 20	015	FY	2016	FY	2017 Bas	se F	Y 2017 (	ОСО	FY 2017	7 Total
Procurement Quantity (Uni							-		_			_		-		-		_
Gross/Weapon System Co		ns)					115.094		_			-		-		-		
Less PY Advance Procure							-		_			-		-		-		_
Net Procurement (P-1) (\$ i	n Millions)						115.094		-			-		-		-		-
Plus CY Advance Procure	ment (\$ in Mill	lions)					-		-			-		-		-		-
Total Obligation Authorit	y (\$ in Millions	s)					115.094		-			-		-		-		-
(TI	ne following l	Resource Su	mmary row	s are for info	ormational p	urposes onl	y. The corres	sponding bud	get reques	s are docum	ented elsev	here.)				'		
Initial Spares (\$ in Millions)							-	·	-			-		-		-		-
Gross/Weapon System Ur	nit Cost (\$ in [	Dollars)					-		-			-		-		-		-
												1						
Note: Subtotals or Totals i	n this Exhibit	P-5 may no	t be exact o	or sum exact	ly due to rou	ınding.									,			
	F	Prior Years	;		FY 2015			FY 2016		FY	/ 2017 Ba	se	F	Y 2017 OC	0	F	Y 2017 Tot	tal
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
Hardware - S0090 - OAMCM	Support Equip	ment Cost												, ,	, ,			
Recurring Cost																		
1.1.1) OPMA <sup>(†)</sup>	111,200.00	15	1.668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) SNIUTT	-	-	1.380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) ORCA	3,098K	2	6.195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) Tow Cables <sup>(†)</sup>	125,000.00	20	2.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	11.743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - S0090 - OAMCM Support Equipment Cost	-	-	11.743	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Prior Years Cost		,			,								,				•	,
Recurring Cost																		
2.1.1) Prior Years Cumulative Funding	-	-	103.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	103.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Prior Years Cost	-	-	103.351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	115.094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<sup>(†)</sup> indicates the prese	nce of a P-	5a																

LI 4248 - Aviation Mine Countermeasures Navy

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Exhibit P-5a, Procurement History and Planning: PB 2017 N	lavy	Date: February 2016
		Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	6 / OAMCM [OAMCM]

Cost Elements	0 C 0	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) OPMA <sup>(†)</sup>		2014	Unknown / Unknown	C / FFP	NAVSEA	Mar 2014	Mar 2015	9	100,000.00	N	Mar 2013	Mar 2013
1.1.4) Tow Cables <sup>(†)</sup>		2012	Cogent, UK / UNKNOWN	C / FFP	NSWC, PC	May 2012	May 2013	10	100,000.00	Y		May 2011
1.1.4) Tow Cables <sup>(†)</sup>		2013	Cogent, UK / UNKNOWN	C/FFP	NSWC, PC	May 2013	May 2014	10	150,000.00	Y		May 2012

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

														UN	ICLA	ASSI	FIEC	)													
Ex	hib	it F	P-21, Pr	oduct	ion Sc	hedu	le: PE	3 201	7 Nav	/y														Date	: Feb	ruary	2016	3			
			iation / 03 / 3	Budg	et Acti	vity /	Budg	get S	ub Ad	ctivity	<b>/</b> :					i <b>ber</b> / e Cou		neasu	res							nber / :M [O/		[DOD M]	IC]:		
				lements in Each)								Fiscal	rear 2012	2										Fiscal Y	ear 2013						B A
0 C 0	F R	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2011	BAL DUE AS OF 1 OCT	0 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	Year 201 J U L	A U G	S E P	0 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	A N C
	1) OF																	1													
Pric			NAVY	9	T -	9								_																	9
1.1.		w Ca		9	-	9																									
			NAVY	10	-	10								Α -	-	-	-	-	-	-	-	-	-	-	-	4	3	3			-
	2 2	013	NAVY	10	-	10									1	1										A -	-	-	-	-	10
							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 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	n n	A U G	S E P	

Date: February 2016	
1810N / 03 / 3   4248 / Aviation Mine Countermeasures   6 / OAMCM [OAMCM]	
Color   Fiscal Year 2014   Fiscal Year 2015   Fis	DIC]:
N   PRIOR   TO 1   DUE   O N   D   J   F   M   A   M   J   J   A   S   O N   D   J   F   M   A   M   J   J   J   A   S   O   N   D   J   F   M   A   M   J   J   J   J   J   J   J   J   J	
O F ROW PROC OCT AS OF C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A P A U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U E C O E A E A E A P A U U U U U U E C O E E A E A E A P A U U U U U U E C O E E A E E A E A P E E E E E E E E E E E	
Prior Years Deliveries: 6       1 2014 NAVY     9 - 9         A 2 2 2 2	A S U E G P
1 2014 NAVY 9 - 9 A 2 2 2 2 2	
AAA) Town Oakles	1
1.1.4) Tow Cables	
2 2012 NAVY 10 10 -	
2 2013 NAVY 10 - 10 4 3 3	
O N D J F M A M J J A S O N D J F M A M J J J A C O E A E A P A U U U T V C N B R R Y N L G P T V C N B R R Y N L	A S U E G P

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4248 / Aviation Mine Countermeasures	6 / OAMCM [OAMCM]

		Produ	ction Rates (Each	/ Year)				Procurement Le	adtime (Months)			
MFF						Ini	tial			Red	rder	
Ref					ALT	ALT	Manufacturing	Total	ALT	ALT	Manufacturing	Total
#	Name - Location	MSR For 2017	1-8-5 For 2017	MAX For 2017	Prior to Oct 1	After Oct 1	PLT	After Oct 1	Prior to Oct 1	After Oct 1	PLT	After Oct 1
1	Unknown - Unknown	3	10	20	-	-	12	12	-	-	12	12
2	Cogent, UK - UNKNOWN	-	-	-	-	-	12	12	-	-	12	12

<sup>&</sup>quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

**Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4268 / Aviation Support Equipment

Aircraft 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 Item MDAP/MAIS Code(s): N/A

Line Item MDAP/MAIS Code: N/A	Item MD	AP/IVIAIS Cod	e(s): N/A									
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	47.105	49.773	39.099	-	39.099	35.574	40.367	60.537	60.928	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	47.105	49.773	39.099	-	39.099	35.574	40.367	60.537	60.928	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	47.105	49.773	39.099	-	39.099	35.574	40.367	60.537	60.928	Continuing	Continuing
(The following	g Resource Sumi	mary rows are fo	r informational p	urposes only. Th	ne corresponding	g budget request	s are documente	d elsewhere.)				
Initial Spares (\$ in Millions)	-	1.636	3.249	1.597	-	1.597	3.035	2.302	1.922	1.961	Continuing	Continuing
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

### **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.

Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

**Date:** February 2016

### Appropriation / Budget Activity / Budget Sub Activity:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

Aircraft Support Equipment

4268 / Aviation Support Equipment

P-1 Line Item Number / Title:

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

Item MDAP/MAIS Code(s): N/A

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.

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.

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 material 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.

#### IP5 / CSEL - SY0601: 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.

#### [P5 / LEP- SY080]: LASER EYE PROTECTION (LEP) - SY080 (Baseline)

The LEP program is a family of eye protection solutions that will provide Fixed, Rotary Wing and Patrol 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, googles, 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.

#### [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, 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.

[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 clothing, and eye protection compatibility. These products will greatly improve the level of head and hearing protection available to aircrew, maintainers, and flight deck personnel.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navv

Date: February 2016

### Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4268 / Aviation Support Equipment

Aircraft Support Equipment

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

Item MDAP/MAIS Code(s): N/A

[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.

#### [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.

#### [P5 / AE - SY125]: AIRCREW ENDURANCE (AE) - SY125 (Baseline)

AE is an Abbreviated Acquisition Program. The program is comprised of many components designed to improve endurance in flights of longer duration. Systems include survival vests and body armor design, sizing, compatibility, durability and color improvements; hydration systems; mission extender devices to address physical waste needs; and improved universal camouflage to the Marine Corps coyote color schemes. These improvements will address issues associated with heat stress, physical fatigue, safety and loss of mobility on long duration missions. Changes in the FY15 Budget reguest reflect reaching the Inventory Objective of 9118 AE Vests in FY13.

[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.

[P3A / 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 & 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.

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy

**Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity:

P-1 Line Item Number / Title:

1810N: Other Procurement, Navy / BA 03: Aviation Support Equipment / BSA 3:

4268 / Aviation Support Equipment

Aircraft Support Equipment

Program Elements for Code B Items: N/A

Other Related Program Elements: N/A

Line Item MDAP/MAIS Code: N/A

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

Item MDAP/MAIS Code(s): N/A

	Exhibits Schedule		Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Exhibit Type	Title*	Subexhibits CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) I (\$ M)				
P-40a	Other Aviation Support Equipment	P-5a	- / 0.000	- /3.841	- /7.532	- /7.230	- / -	- /7.230
P-5	1 / Aviation Life Support	P-5a, P-21	- / 0.000	- / 28.602	- /30.586	- / 22.528	Quantity / Total Cost (Each) I (\$ M)         Quantity / (Each)           - / -         - / -           - / -         - / -           - / -         - / -           - / -         - / -           - / -         - / -           To Complete         To           Quantity / Total Cost (Each) I (\$ M)         Quantity / (Each)           - / -         - / -           - / -         - / -           - / -         - / -           - / -         - / 2.865	- / 22.528
P-5	2 / Portable Electronic Maintenance Aids	P-5a, P-21	- / 0.000	- / 9.146	- /7.762	- /7.280	- / -	- /7.280
P-3a	1 / ALIS SHIP INSTALLATION (Add Capability)		- / 0.000	- /5.516	- / 3.893	- /2.061	- / -	- / 2.061
P-40	Total Gross/Weapon System Cost		- / 0.000	- / 47.105	- / 49.773	- / 39.099	- 1 -	- / 39.099
	Exhibits Schedule		FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits CD	Quantity / Total Cost (Each) / (\$ M)		Quantity / Total Cost (Each) I (\$ M)			
P-40a	Other Aviation Support Equipment	P-5a	- / -	- / -	- / -	- / -	- / -	- / -
P-5	1 / Aviation Life Support	P-5a, P-21	- / -	- / -	- / -	- / -	- / -	- / -
P-5	2 / Portable Electronic Maintenance Aids	P-5a, P-21	- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / ALIS SHIP INSTALLATION (Add Capability)		- / 3.855	- / 3.727	- / 3.821	- / 3.895	- / 2.865	- /29.633
P-40	Total Gross/Weapon System Cost		- / 35.574	- / 40.367	- / 60.537	- / 60.928	Continuing	Continuing

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

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

#### Justification:

Beginning in FY2015, funding is transferred from BLIs: 4265 (Other Aviation Support Equipment), 4244 (Aviation Life Support), 4264 (Portable Electronic Maintenance Aids - PEMA), and 4267 (Autonomic Logistics Info Systems - ALIS).

The FY2017 Budget Request includes funding for the following:

Other Aviation Support Equipment - the procurement of hardware and associated support costs for JTDI (S7042), MAL-EIT/EPUK (S7046), and CBM+ (S7048).

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.

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.

Aviation Life Support - the procurement of hardware and associated support costs for 50 JHMCS Night Vision Cueing and Display devices, 1,200 Aircrew/Flight Deck Maintainer Triple Hearing Protection/Headset assemblies.

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Exhibit P-40, Budget Line Item Just	ification: PB 2017 Navy		Date: February 2016	
<b>Appropriation / Budget Activity / Bu</b> 1810N: Other Procurement, Navy / BA Aircraft Support Equipment	udget Sub Activity: A 03: Aviation Support Equipment / BSA 3:	P-1 Line Item Num 4268 / Aviation Sup		
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	Item MDAP/MAIS Code(s): N/A			
Portable Electronic Maintenance Aids (PEMA)	- the procurement of hardware and associated support	costs for 1,449 PEMA units.		
Autonomic Logistics Info Systems (ALIS) - sup	ports Design Support Activities (DSA) to include materia	l purchases for the installatio	on of two (2) ALIS in FY2018.	

LI 4268 - Aviation Support Equipment Navy

Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Date: February 2016

Aggregated Items Title:

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3

P-1 Line Item Number / Title:

4268 / Aviation Support Equipment

Other Aviation Support Equipment (1)

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			Р	rior Year	's		FY 2015			FY 2016		FY	2017 Ba	se	FY	′ 2017 OC	ю	FY	2017 Tot	al
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)
1) Naval Aviation Logisti	cs Da	ta Analy	sis Decision l	Knowledge	Programming	for Logistic	s Analys													
1.1) S7039 - Aviation Data Warehouse Environment <sup>(2)(†)</sup>	A		-	-	-	409,507.00	1	0.410	2,887K	1	2.887	1,405K	1	1.405	-	-	-	1,405K	1	1.40
Subtotal: 1) Naval Aviati Data Analysis Decision I Programming for Logisti	(nowl	edge	-	-	0.000	-	-	0.410	-	-	2.887	-		1.405	-	-	-	-	•	1.4
2) Naval Aviation Logisti	cs Co	mmand	Management	Information	System/Nav	al Air System	ns Command	F												
2.1) S7041 - NFSA HW/SW <sup>(3)(†)</sup>	A		-	-	-	853,296.00	1	0.853	2,376K	1	2.376	2,093K	1	2.093	-	-	-	2,093K	1	2.09
Subtotal: 2) Naval Aviati Command Management System/Naval Air Systen F	Inforn	ation	-	-	0.000	-	-	0.853	-	-	2.376	-	-	2.093	-	-	-	-	-	2.09
3) Joint Technical Data II	ntegra	tion (J1	TDI)																	
3.1) S7042 - JTDI HW/SW <sup>(†)</sup>	А		-	-	-	844,000.00	1	0.844	510,000.00	1	0.510	562,653.00	1	0.563	-	-	-	562,653.00	1	0.56
Subtotal: 3) Joint Techni Integration (JTDI)	cal Da	nta	-	-	0.000	-	-	0.844	-	-	0.510	-	-	0.563	-	-	-	-	-	0.56
4) Marine Aviation Logis	tics E	nterpris	e Information	Technology	(MAL-EIT)/E	xpeditionary	Pack U													
4.1) S7046 - EPUK HW/SW <sup>(4)(†)</sup>	В		-	-	-	374,000.00	1	0.374	192,767.00	1	0.193	1,914K	1	1.914	-	-	-	1,914K	1	1.9
Subtotal: 4) Marine Aviat Logistics Enterprise Info Technology (MAL-EIT)/E Pack U	rmati		-	-	0.000	-	-	0.374	-	-	0.193	-	-	1.914	-	-	-	-	•	1.93
5) Automated Data Captu	ıre Sy	stem (A	ADCS)																	
5.1) S7047 - ADCS HW/SW <sup>(†)</sup>	В		-	-	-	207,000.00	1	0.207	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 5) Automated I System (ADCS)	Data C	apture	-	-	0.000	-	-	0.207	-	-	-	-	-	-	-	-	-	-	-	-
6) Condition Based Main	tenan	ce Plus	(CBM+)																	
6.1) S7048 - CBM+ HW/SW <sup>(5)(†)</sup>	A		-	-	-	-	-	-	168,000.00	1	0.168	154,437.00	1	0.154	-	-	-	154,437.00	1	0.15
Subtotal: 6) Condition Ba Maintenance Plus (CBM-			-		0.000	-	-		-	-	0.168	-	-	0.154	-	-	-	-	-	0.15
7) Production Engineering	ıg Sup	port (A	JR6.8)																	
7.1) S7833 - Marine Aviation Logistics Enterprise Information Technology	Α		-	-	-	-	-	-	-	-	0.020	-	-	0.020	-	-	-	-	-	0.02

LI 4268 - Aviation Support Equipment Navy

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P-1 Line #109

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4268 / Aviation Support Equipment

Other Aviation Support Equipment

Other Aviation Support Equipment

			P	Prior Years	S		FY 2015			FY 2016		FY	′ 2017 Ba	se	F	2017 OC	0	FY	2017 To	tal
Item Number / Title [DODIC]	ID CD	MDAP/ MAIS Code	Unit Cost	Qty (Each)	Total Cost (\$ M)															
7.2) S7833 - Aviation Data Warehouse Environment <sup>(6)</sup>	Α		-	-	-	-	-	0.326	-	-	0.438	-	-	0.389	-	-	-	-	-	0.38
7.3) S7833 - Naval Air Systems Command Fleet System Arrays (7)	A		-	-	-	-	-	0.354	-	-	0.537	-	-	0.427	-	-	-	-	-	0.42
7.4) S7833 - Joint Technical Data Integration	Α		-	-	-	-	-	0.349	-	-	0.349	-	-	0.221	-	-	-	-	-	0.22
7.5) S7833 - Automated Data Capture System	Α		-	-	-	-	-	0.124	-	-	-	-	-	-	-	-	-	-	-	-
7.6) S7833 - Condition Based Maintenance Plus	А		-	-	-	-	-	-	-	-	0.054	-	-	0.044	-	-	-	-	-	0.04
Subtotal: 7) Production E Support (AIR6.8)	ngin	eering	-	-	0.000	-	-	1.153	-	-	1.398	-	-	1.101	-	-	-	-	-	1.10
Total			-	-	0.000	-	-	3.841	-	-	7.532	-	-	7.230	-	-	-	-	-	7.23

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

#### Footnotes:

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<sup>(†)</sup> indicates the presence of a P-5a

<sup>(1)</sup> 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.

<sup>(2)</sup> 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. In FY17 the total cost reflects the procurement of 10 suites and additional peripheral hardware items (i.e., power supplies, hard drives, etc.) which allows for the installation/re-engineering/consolidation of hardware servers and software within the Naval Air Systems Command/Naval Air Warfare Center, Aircraft Division 7.2 Data Center.

<sup>(3)</sup> 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. In FY17 the total cost reflects the procurement of 10 suites and additional peripheral hardware items (i.e., power supplies, hard drives, etc.) which represents the budget requirement 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 and the ability to comply with mandatory Information Security (IA) mandates.

<sup>(4)</sup> Marine Aviation Logistics Enterprise Information Technology (MAL-EIT)/Expeditionary Pack Up Kits (EPUK) (S7046) Increase in unit cost for EPUK between FY16 and FY17 is to perform a complete technology refresh for all of the existing suites located at the Marine Aviation Logistics (MALS), as well as the Marine Reserves and Marine School Houses. This will also provide additional functionality to the EPUK which will enable sustainment of operations in austere environments.

<sup>(5)</sup> Funding for Condition Based Maintenance (CBM+) was previously executed under DECKPLATE.

<sup>(6)</sup> Decrease in production engineering support between FY16 and FY17 is due to an decrease in technical refresh requirements.

<sup>(7)</sup> Decrease in production engineering support between FY16 and FY17 is due to an decrease in technical refresh requirements.

Exhibit P-5a, Procurement History and Planning: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:
4268 / Aviation Support Equipment

Other Aviation Support Equipment

Other Aviation Support Equipment

Item Number / Title [DODIC]	0 0	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) Naval Aviation Logistics Data Ana	lysis	Decision K	nowledge Programming for Logist	ics Analys								
1.1) S7039 - Aviation Data Warehouse Environment <sup>(2)</sup>		2015	Teradata Government Systems / Germantown MD	C / FFP	NAVSUP	Dec 2014	Dec 2015	1	409,507.00	Y		Nov 2014
1.1) S7039 - Aviation Data Warehouse Environment <sup>(2)</sup>		2016	Teradata Government Systems / Germantown MD	C / FFP	NAVAIR	Dec 2015	Dec 2016	1	2,887K	Y		Nov 2015
1.1) S7039 - Aviation Data Warehouse Environment <sup>(2)</sup>		2017	Teradata Government Systems / Germantown MD	C / FFP	NAVAIR	Dec 2016	Dec 2017	1	1,405K	Y		Nov 2016
2) Naval Aviation Logistics Comman	d Ma	nagement Ir	nformation System/Naval Air Syste	ems Command F								
2.1) S7041 - NFSA HW/SW <sup>(3)</sup>		2015 (8)	VARIOUS / VARIOUS	C / FFP	NAVAIR	Aug 2015	Dec 2015	1	853,296.00	Y		Jan 2015
2.1) S7041 - NFSA HW/SW <sup>(3)</sup>		2016	VARIOUS / VARIOUS	C/FFP	NAVAIR	May 2016	Sep 2016	1	2,376K	Y		Jan 2016
2.1) S7041 - NFSA HW/SW <sup>(3)</sup>		2017	VARIOUS / VARIOUS	C/FFP	NAVAIR	May 2017	Sep 2017	1	2,093K	Y		Jan 2017
3) Joint Technical Data Integration (	JTDI)											
3.1) S7042 - JTDI HW/SW		2015	DMI / DMI	C / CPFF	DTIC	Jul 2015	Oct 2015	1	844,000.00	Y		May 2015
3.1) S7042 - JTDI HW/SW		2016	DMI / DMI	C / CPFF	DTIC	Jul 2016	Oct 2016	1	510,000.00	Y		May 2016
3.1) S7042 - JTDI HW/SW		2017	DMI / DMI	C / TBD	DTIC	Jul 2017	Oct 2017	1	562,653.00	Y		May 2017
4) Marine Aviation Logistics Enterpr	ise Ir	formation T	echnology (MAL-EIT)/Expeditional	y Pack U								
4.1) S7046 - EPUK HW/SW <sup>(4)</sup>		2015	VARIOUS / VARIOUS	C / FFP	NAVAIR	May 2015	Aug 2015	1	374,000.00	Y		Apr 2015
4.1) S7046 - EPUK HW/SW <sup>(4)</sup>		2016	VARIOUS / VARIOUS	C / FFP	NAVAIR	May 2016	Aug 2016	1	192,767.00	Y		Apr 2016
4.1) S7046 - EPUK HW/SW <sup>(4)</sup>		2017	VARIOUS / VARIOUS	C / FFP	NAVAIR	May 2017	Aug 2017	1	1,914K	Υ		Apr 2017
5) Automated Data Capture System	(ADC	S)										
5.1) S7047 - ADCS HW/SW		2015	CACI / CACI	C / FFP	ARMY	Feb 2015	Mar 2015	1	207,000.00	Y		Jan 2015
6) Condition Based Maintenance Plu	ıs (CI	3M+)										
6.1) S7048 - CBM+ HW/SW <sup>(5)</sup>		2016	VARIOIUS / VARIOUS	Various	NAVAIR	Feb 2016	Apr 2016	1	168,000.00	Y		Nov 2015
6.1) S7048 - CBM+ HW/SW <sup>(5)</sup>		2017	VARIOIUS / VARIOUS	Various	NAVAIR	Feb 2017	Apr 2017	1	154,437.00	Y		Nov 2016

#### Footnotes:

<sup>(8)</sup> Award date moved from May to August due to changes in technology and thus a requirement to request new quotes from the original equipment manufacuturer.

							UI	VCLA5	SIFIEL	,								
Exhibit P-5, Cost	Analysis	: PB 20	17 Navy	•										Date: F	ebruary 2	2016		
<b>Appropriation / B</b> 1810N / 03 / 3	udget Ad	ctivity /	Budget	Sub Act	ivity:			<b>Numbe</b> on Suppo							umber / T		DIC]:	
ID Code (A=Service Read	dy, B=Not Servi	ce Ready):							М	DAP/MAIS	Code:							
F	Resource	Summ	ary		F	Prior Yea	ars	FY 20	)15	FY 2	2016	FY	2017 Bas	se F	Y 2017 (	ОСО	FY 2017	Total
Procurement Quantity (Uni	its in Each)						-		-		-			-		-		_
Gross/Weapon System Co		s)					0.000		28.602		30.586	5	2:	2.528		-		22.528
Less PY Advance Procure	ement (\$ in Mill	lions)					-		-		-			-		-		-
Net Procurement (P-1) (\$ i	in Millions)						0.000		28.602		30.586	3	2:	2.528		-		22.528
Plus CY Advance Procure	ment (\$ in Milli	ions)					-		-		-			-		-		-
Total Obligation Authorit	t <b>y</b> (\$ in Millions,	)					0.000		28.602		30.586	3	2:	2.528		-		22.528
(TI	he following F	Resource Su	ummary row	s are for info	ormational pu	ırposes only	. The corres	ponding bud	lget request	s are docume	ented elsewhe	ere.)				·		
Initial Spares (\$ in Millions)							-		-		-			-		-		-
Gross/Weapon System Ur	nit Cost (\$ in D	ollars)					-		-		-			-		-		-
							1											
Note: Subtotals or Totals i	_			or sum exactl		nding.	ı											
	Р	rior Years	_		FY 2015			FY 2016		FY	2017 Base		F'	Y 2017 O	_	F	/ 2017 Tota	-
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Hardware - Survival Electronic	cs Cost																,	
Recurring Cost					· · · · · · · · · · · · · · · · · · ·		1						Г	T	_			
1.1.1) CSEL - SY060 <sup>(†)</sup>	-	-	0.000	8,250.00	49	0.404	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.000	-	-	0.404	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Survival Electronics Cost	-	-	0.000	-	-	0.404	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Helmets, Hearing	and Display Co	ost																
Recurring Cost																		
2.1.2) JHMCS Night Vision - SY215 <sup>(†) (9)</sup>	-	-	0.000	168,000.00	120	20.160	163,600.00	85	13.906	190,140.00	50	9.507	-	-	-	190,140.00	50	9.507
2.1.3) FDC - SY505 <sup>(†)</sup> (10)	-	-	0.000	15,000.00	100	1.500	7,255.05	1,039	7.538	7,064.17	1,200	8.477	-	-	-	7,064.17	1,200	8.477
2.1.4) EKB - SY450 <sup>(†)</sup>	-	-	0.000	-	-	-	1,905.52	1,736	3.308	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.000	-	-	21.660	-	-	24.752	-	-	17.984	-	-	-	-	-	17.984
Subtotal: Hardware - Helmets, Hearing and Display Cost	-	-	0.000	-	-	21.660	-	-	24.752	-	-	17.984	-	-	-	-	-	17.984
Support - Production Support	Cost									·								
4.1) Survival Electronics - SY830	-	-	0.000	-	-	0.258	-	-	-	-	-	-	-	-	-	-	-	-
4.2) Helmets, Hearing and Displays - SY830 <sup>(12)</sup>	-	-	0.000	-	-	6.280	-	-	5.834	-	-	4.544	-	-	-	-	-	4.544

LI 4268 - Aviation Support Equipment Navy

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P-1 Line #109

Exhibit P-5, Cost Analysis: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Date: February 2016

P-1 Line Item Number / Title:
4268 / Aviation Support Equipment

1 / Aviation Life Support

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

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

MDAP/MAIS Code:

	F	Prior Years	S		FY 2015			FY 2016		FY	/ 2017 Ba	se	F	2017 OC	0	F	Y 2017 Tot	tal
Cost Elements	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)												
Subtotal: Support - Production Support Cost	_	-	0.000	-	-	6.538	-	-	5.834	-	-	4.544	-	-	-	-	-	4.544
Gross/Weapon System Cost	-	•	0.000	-	-	28.602	-	-	30.586	-	-	22.528	-	-	-	-	ī	22.528

<sup>(†)</sup> indicates the presence of a P-5a

#### Footnotes:

- (9) SY215 JHMCS: Quantity and unit prices in FY15-FYDP adjusted to reflect revised negotiated contract pricing. Unit costs and quantities vary due to quantity based step-ladder pricing.
- (10) SY505 FDC: Unit cost and quantities vary depending on mix of AHP, THP and improved head protection devices being procured.
- (11) SY450 EKB: EKB hardware costs realigned to BLI 2876 starting in FY17.
- (12) SY830 Production Support: Cost decrease from FY16-FY17 is secondary to the EKB program and associated Production Support costs being realigned to BLI 2876.

Exhibit P-5a, Procurement History and Planning: PB 2017 N	lavy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4268 / Aviation Support Equipment	1 / Aviation Life Support

								I				
Cost Elements	0 0	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
2.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2015 (13)	Rockwell Collins - ESA Vision Systems / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2016	Mar 2017	120	168,000.00	Y		Dec 2014
2.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2016	Rockwell Collins - ESA Vision Systems / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2016	Mar 2017	85	163,600.00	Y		Dec 2014
2.1.2) JHMCS Night Vision - SY215 <sup>(†)</sup>		2017	Rockwell Collins - ESA Vision Systems / Dallas Ft. Worth, Texas	SS / FFP	NAVAIR	Mar 2017	Mar 2018	50	190,140.00	Y		Dec 2014
2.1.3) FDC - SY505 <sup>(†)</sup>		2015 (14)	Creare / Hanover, NH	SS / FFP	NAWCADLKE	Jan 2016	Mar 2016	100	15,000.00	Y		Oct 2014
2.1.3) FDC - SY505 <sup>(†)</sup>		2016	Creare / Hanover, NH	SS / FFP	NAWCADLKE	Mar 2016	May 2016	1,039	7,255.05	Y		Oct 2015
2.1.3) FDC - SY505 <sup>(†)</sup>		2017	Creare / Hanover, NH	SS / FFP	NAWCADLKE	Mar 2017	May 2017	1,200	7,064.17	Y		Oct 2015
2.1.4) EKB - SY450		2016	TBD / TBD	C / TBD	NAWCAD	Apr 2016	May 2016	1,736	1,905.52	Y		Oct 2015

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

#### Footnotes:

 $<sup>^{(13)}</sup>$  Contract award delayed until March 2016 pending JHMCS/NVCD FRP1 decision review.

<sup>(14)</sup> Contract award moved from Jan 2015 to Jan 2016 due to continued delays to the novation effort.

Exł	nib	it P	-21, Pro	3																Date	: Feb	ruary	2016								
			Activity / Budget Sub Activity:  2																			Title Supp		IC]:							
												Fiscal Y	ear 2015	i										Fiscal Y	ear 2016						В
			PRIOR BAL TO 1 DUE O N D J F M A M J J A S O N D J F M A M															2016				Ĺ									
M															A U G	S E P	A N C E														
C R F F SERVICE QTY 2014 AS OF C O E A E A P A U U U E C O E A E A P A U U U E C O B A E A P A U U U E C O B A E A P A U U U E C O C O C O C O C O C O C O C O C O C																															
1	1 2	015	NAVY	120	-	120																		Α -	-	-	-	-	-	-	120
1	1 2	016	NAVY	85	-	85																		Α -	-	-	-	-	-	-	85
1	1 2	017	NAVY	50	-	50																									50
2.1.3	B) FD	)C - S	Y505 <sup>(10)</sup>																												
2	2 2	015	NAVY	100	-	100																A -	-	100							-
2	2 2	016	NAVY	1,039	-	1,039																		Α -	-	87	87	87	87	87	604
2	2 2	017	NAVY	1,200	-	1,200																									1,200
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N J	n T	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	U U	A U G	S E P	

bit F	P-21, Pro	ducti	ion Sc	hedul	e: PB	2017	7 Nav	y														Date	: Feb	ruary	2016	3			
-		Budge	et Acti	vity /	Budg	et Su	ıb Ac	tivity:								nent											IC]:		
										Fiscal Ye	ar 2017										F	iscal Ye	ar 2018						E
												Ca	lendar Y	ear 201	7								Calen	dar Year	2018				į
FY	SERVICE	PROC QTY	TO 1 OCT 2016	DUE AS OF 1 OCT	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	N C
JHMCS	Night Vision	SY215 (S	9)	·	<u> </u>					,				·	·			·	· ·	· ·	,	·	,	· ·			·		
2015	NAVY	120	-	120	-	-	-	-	-	10	10	10	10	10	10	10	10	10	10	10	10								
2016	NAVY	85	-	85	-	-	-	-	-	8	7	7	7	7	7	7	7	7	7	7	7								
2017	NAVY	50	-	50						A -	-	-	-	-	-	-	-	-	-	-	-	5	5	4	4	4	4	4	L
FDC - S	SY505 <sup>(10)</sup>																												
2015	NAVY	100	100	-																									Π
2016	NAVY	1,039	435	604	87	87	86	86	86	86	86																		
2017	NAVY	1,200	-	1,200						Α -	-	100	100	100	100	100	100	100	100	100	100	100	100						
					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	
	FY JHMCS 2015 2016 2017 FDC - \$ 2015 2016	ropriation / E DN / 03 / 3  Cost EI (Units in  FY SERVICE  JHMCS Night Vision - 2015 NAVY 2016 NAVY 2017 NAVY FDC - SY505 (10) 2015 NAVY	Cost Elements (Units in Each)	P-1   P-1	P-1 Line	P-1 Line Item	P-1 Line Item Number   P-1 Line Item Number	P-1 Line Item Number   P-1 Line Item Number	P-1 Line Item Number / Title:   4268 / Aviation Support Equipm   Accept   Fiscal Year 2017     Fiscal Year 2017	P-1 Line Item Number / Title:	P-1 Line Item Number / Title:	P-1 Line   Item Number / Title:	P-1 Line Item Number / Title:	P-1 Line Item Number / Title: 4268 / Aviation Support Equipment    Cost Elements (Units in Each)	P-1 Line Item Number / Title:  4268 / Aviation Support Equipment    Cost Elements (Units in Each)   PROC   OCT   NOT   N	P-1 Line   Item Number / Title:	P-1 Line Item Number / Title:	P-1 Line Item Number / Title:	P-1 Line Item Number / Title:   1/A viation Life Support Equipment   1/A viation Life Support   1/A viation Life Su	P-1 Line Item Number / Title:	P-1 Line   Item Number / Title:	P-1 Line Item Number / Title:							

														U	NC	LAS	SSI	FIEC	)													
Ex	hi	bit F	P-21, Pr	oducti	on Sc	hedul	le: PB	3 201	7 Nav	vy															Date	e: Fel	oruar	y 2016	6			
			iation / 03 / 3	Budge	et Acti	vity /	Budg	jet Su	ıb Ad	ctivity	:		<b>1 Lin</b> :															/ <b>Title</b> e Sup	<b>[DOI</b>	OIC]:		
				lements in Each)								Fiscal	Year 201	19							,				Fiscal Y	ear 2020	1					В
	м				ACCEPT PRIOR	BAL			,						Cale	ndar Ye	ear 201	19				_			,	Cale	ndar Yea	ır 2020				L
0 C 0	F R	FY	SERVICE	PROC QTY	TO 1 OCT 2018	DUE AS OF 1 OCT	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	N U	J U L	A U G	S E P	N C E
2.1.	2) J	HMCS	Night Vision	- SY215 <sup>(9)</sup>	)				I.		,																					
			NAVY	120		-																										T -
	1	2016	NAVY	85	85	-																										-
	1	2017	NAVY	50	30	20	4	4	4	4	4																					-
2.1.	3) F	DC - S	Y505 <sup>(10)</sup>																													
	2	2015	NAVY	100	100	-																										-
	2	2016	NAVY	1,039	1,039	-																										-
	2	2017	NAVY	1,200	1,200	-															,	,										-
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		N N J	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	N U	J U L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4268 / Aviation Support Equipment	1 / Aviation Life Support

							- r					
		Produ	ction Rates (Each	/ Year)				Procurement Le	eadtime (Months	)		
MF	R					In	itial			Rec	order	
Re		MSR For 2017	1-8-5 For 2017	MAX For 2017	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
	Rockwell Collins - ESA Vision Systems - Dallas Ft. Worth, Texas	4	120	240	-	-	-	-	-	6	12	18
	2 Creare - Hanover, NH	50	900	3,500	11	3	3 2	5	-	4	2	6

<sup>&</sup>quot;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 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

Exhibit P-5, Cost Analysis: PB 2017 Navy

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

P-1 Line Item Number / Title:

4268 / Aviation Support Equipment

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

Appropriation / Budget Activity / Budget Sub Activity:

1810N / 03 / 3

ID Code (A=Service Ready, B=Not Service Ready):		ME	DAP/MAIS Code:			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	9.146	7.762	7.280	-	7.280
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	9.146	7.762	7.280	-	7.280
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	9.146	7.762	7.280	-	7.280
(The following Resource Summary rows are for informati	onal purposes only. The cor	responding budget request	s are documented elsewher	re.)		
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

	P	rior Years	3		FY 2015			FY 2016		FY	1 2017 Ba	se	F	Y 2017 OC	0	FY	/ 2017 Tot	.al
Cost Elements	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	Qty (Each)	Total Cost (\$ M)	Unit Cost	<b>Qty</b> (Each)	Total Cost (\$ M)
Hardware - Hardware PEMA	Cost																	
Recurring Cost																		
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>	-	-	0.000	3,552.63	1,672	5.940	3,792.18	1,612	6.113	3,835.96	1,449	5.558	-	-	-	3,835.96	1,449	5.558
1.1.2) S6002 CH/ MH-53 PEMAs <sup>(†) (15)</sup>	-	-	0.000	3,750.74	337	1.264			-		-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.000	-	-	7.204	-	-	6.113	-	-	5.558	-	-	-	-	-	5.558
Subtotal: Hardware - Hardware PEMA Cost	-	-	0.000	-	-	7.204	-	-	6.113	-	-	5.558	-	-	-	-	-	5.558
Support - Production Cost															,			
2.1) S6820 Portable Electronic Maintenance Aids (PEMAs) Support	-	-	0.000	-	-	1.806	-	-	1.649	-	-	1.722	-	-	-	-	-	1.722
2.2) S6830 CH/MH-53 PEMAs Support	-	-	0.000	-	-	0.136	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support - Production Cost	-	-	0.000	-	-	1.942	-	-	1.649	-	-	1.722	-	-	-	-	-	1.72
Gross/Weapon System Cost	-	-	0.000	-	-	9.146	-	-	7.762	-	-	7.280	-	-	-	-	-	7.280

#### 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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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
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:	,
(†) indicates the presence of a P-5a		
Footnotes:		
(15) Omnibus Reprogramming of FY15 \$1.4M to procure 337 PEMAs for in	itial outfitting of CH/MH-53 helicopter program.	

LI 4268 - Aviation Support Equipment Navy

Exhibit P-5a, Procurement History and Planning: PB 2017	Navy	Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4268 / Aviation Support Equipment	2 / Portable Electronic Maintenance Aids

	0			Method/Type or		Award	Date of First	Qty	Unit Cost	Specs Avail	Date Revision	RFP Issue
Cost Elements	0	FY	Contractor and Location	Funding Vehicle	Location of PCO	Date	Delivery	(Each)	(\$)	Now?	Available	Date
1.1.1) S6001 Portable Electronic Maintenance Aids (PEMAs) <sup>(†)</sup>		2015 (16)	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD LKE	Dec 2014	Feb 2015	1,672	3,552.63	Υ		Dec 2014
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	1,612	3,792.18	Υ		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	Υ		Dec 2016
1.1.2) S6002 CH/MH-53 PEMAs <sup>(†)</sup>		2015 (17)	Panasonic of North America / Secaucus, NJ	C / IDIQ	NAWCAD LKE	Jan 2016	Mar 2016	337	3,750.74	Υ		Dec 2015

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

#### Footnotes:

<sup>(16)</sup> Market research and analysis testing is conducted to determine who will serve as the distributor for Panasonic on each FY IDIQ contract.

<sup>(17)</sup> Omnibus Reprogramming of FY15 \$1.4M to procure 337 PEMAs for initial outfitting of CH/MH-53 helicopter program.

E	chil	bit P	2-21, Pro	ducti	on Sc	hedu	le: P	B 201	17 Nav	/y														Date	: Feb	ruary	2016				
-	•	•	i <b>ation / I</b> 03 / 3	Budge	et Acti	vity /	Bud	get S	ub Ac	tivity	<b>':</b>	1					Title: Equipr	nent										<b>[DOD</b> c Mai	IC]: ntenai	nce /	Aids
			Cost El (Units i									Fiscal \	ear 2015											Fiscal Ye	ar 2016						В
					ACCEPT									C	alendar	Year 201	15								Calend	dar Year	2016				, i
0 0 0	R	FY	SERVICE	PROC QTY	PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	0 C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	N N	n n	A U G	S E P	100	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 J	A U G	S E P	A N C E
1.1	.1) S	6001 F	ortable Electi	onic Main	tenance A	ids (PEM	As)	_			-																				
	1	2015	NAVY	1,672	-	1,672			Α -	-	140	140	140	140	140	140	140	140	140	140	140	132									-
	1	2016	NAVY	1,612	-	1,612			`									· ·			Α -	-	135	135	135	135	135	135	135	135	532
	1	2017	NAVY	1,449	-	1,449																									1,449
1.1	.2) S	6002 C	CH/MH-53 PE	MAs <sup>(15)</sup>																											
	2	2015	NAVY	337	-	337																Α -	-	29	28	28	28	28	28	28	140
							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 J	A U G	S E P	0 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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Ξxh	nibit	t P-21	, Pro	ducti	on Sc	hedul	e: PE	3 201	7 Nav	у														Date	e: Fel	oruary	/ 2016	3			
		priation 1 03 1		Budge	et Acti	vity /	Budg	jet Su	ıb Ac	tivity:		1	<b>Line</b> 88 / Av														Title ectron		DIC]: aintena	ance	Aids
				ements n Each)								Fiscal Y	ear 2017											Fiscal Y	ear 2018						В
Π	_				ACCEPT									С	alendar	Year 20	17								Cale	ndar Yea	r 2018				] [
0 F C R 0 #	/   - 	Y SER	VICE	PROC QTY	PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	O C T	N O V	DEC	J A N	F E B	M A R	A P R	M A Y	N U	n n	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	J U L	A U G	S E P	N C E
1.1.1)	) S600	01 Portabl	e Electr	onic Main	tenance Ai	ids (PEM/	As)																								
1	201	15 NAVY	,	1,672	1,672	-																									
1	201	16 NAVY	′	1,612	1,080	532	135	135	135	127																					
1	201	17 NAVY	,	1,449	-	1,449			Α -	-	121	121	121	121	121	121	121	121	121	121	121	118									
1.1.2	2) S600	02 CH/MH	-53 PEI	MAs <sup>(15)</sup>													•														
2	2 201	15 NAVY	,	337	197	140	28	28	28	28	28																				T .
,		•					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 J	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	J U L	A U G	S E P	

Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Item Number / Title [DODIC]:
1810N / 03 / 3	4268 / Aviation Support Equipment	2 / Portable Electronic Maintenance Aids

		Produc	ction Rates (Each	/ Year)	Procurement Leadtime (Months)												
MFR						In	itial		Reorder								
Ref #	Manufacturer Name - Location	MSR For 2017	1-8-5 For 2017	MAX For 2017	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	-	-	-	-	-	3	2	5					
2	Panasonic of North America - Secaucus, NJ	500	2,000	5,000	-	-	-	-	-	3	2	5					

<sup>&</sup>quot;A" in the Delivery Schedule indicates the Contract Award Date.

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

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity:	P-1 Line Item Number / Title:	Modification Number / Title:
1810N / 03 / 3	4268 / Aviation Support Equipment	1 / ALIS SHIP INSTALLATION

1010117 007 0			720	o i Aviation	Oupport L	quipiniciti	I / ALIO	Olin IIVO	/ LE/ (11014			
Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	0.000	5.516	3.893	2.061	-	2.061	3.855	3.727	3.821	3.895	2.865	29.633
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	5.516	3.893	2.061	-	2.061	3.855	3.727	3.821	3.895	2.865	29.633
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	5.516	3.893	2.061	-	2.061	3.855	3.727	3.821	3.895	2.865	29.633
(The followin	g Resource Sum	mary rows are fo	r informational p	ourposes only. Ti	he corresponding	g budget request	s are documente	ed elsewhere.)				
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

### **Description:**

[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 & 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.

Exhibit P-3a, Individual Modification: P	Date: Feb	Date: February 2016										
Appropriation / Budget Activity / Budget 1810N / 03 / 3	t Sub Acti	•		tem Numb ation Supp		nent	Modification Number / Title: 1 / ALIS SHIP INSTALLATION					
Models of Systems Affected: CVN, LHD	, & LHA	Modifi	cation Typ	oe: Add Ca	pability		Re	elated RDT				
			FY 2017	FY 2017	FY 2017					То		

		1										
Models of Systems Affected: CVN, LHI	), & LHA	Modifi	cation Typ	e: Add Ca	pability		Re	lated RDT	&E PEs:			
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Financial Plan	Qty (Each) I Total Cost (\$ M)	Qty (Each Total Cost (										
Procurement												
Modification Item 1 of 1: ALIS SHIP INSTALLATION												
B Kits												
Recurring												
1.1.1) Installation Material - NonOrganic (18)	- 1 -	4 / 0.160	2 / 0.080	- 1 -	- 1 -	- 1 -	2/0.080	2 / 0.080	2 / 0.080	1 / 0.040	- 1 -	13 / 0
Subtotal: Recurring	- /0.000	- /0.160	- /0.080	- / -	- / -	- / -	- /0.080	- /0.080	- /0.080	- /0.040	- / -	- /0
Subtotal: ALIS SHIP INSTALLATION	- / -	4/0.160	2/0.080	- / -	- / -	- / -	2/0.080	2/0.080	2/0.080	1 / 0.040	- / -	13/0
Subtotal: Procurement, All Modification Items	- /0.000	- /0.160	- /0.080	- / -	- / -	- / -	- /0.080	- /0.080	- /0.080	- /0.040	- / -	- /0
Support (All Modification Items)												
2.1) ALIS - Program Support (19)	- /0.000	- / 0.830	- / 0.865	- /0.787	- 1 -	- / 0.787	- / 0.800	- / 0.803	- / 0.760	- / 0.828	- /1.166	- /6
2.2) ALIS - Production Engineering Support (20)	- /0.000	- / 0.549	- /1.024	- / 0.945	- 1 -	- / 0.945	- / 0.951	- / 0.954	- /1.048	- / 1.055	- /1.699	- /8
Subtotal: Support	- /0.000	- /1.379	- /1.889	- /1.732	- / -	- /1.732	- /1.751	- /1.757	- /1.808	- /1.883	- /2.865	- /15
Installation												
Modification Item 1 of 1: ALIS SHIP INSTALLATION	- / 0.000	- /3.977	- <i>l</i> 1.924	- / 0.329	- 1 -	- / 0.329	- /2.024	- / 1.890	- /1.933	- /1.972	- 1 -	- /14
Subtotal: Installation	- /0.000	- /3.977	- /1.924	- /0.329	- / -	- /0.329	- /2.024	- /1.890	- /1.933	- /1.972	- / -	- /14
Total												
Total Cost (Procurement + Support + Installation)	0.000	5.516	3.893	2.061	-	2.061	3.855	3.727	3.821	3.895	2.865	29.

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 03 / 3	P-1 Line Item Number / Title: 4268 / Aviation Support Equipment	Modification Number / Title: 1 / ALIS SHIP INSTALLATION

#### Modification Item 1 of 1: ALIS SHIP INSTALLATION

mouniouni nom i or	MALIO OTTO TOTALES TOTAL	• •										
Manufacturer Informat	ion											
Manufacturer Name: NA	WC AD 4.5.10			Manufacturer Location: St. Inigoes, NAS Patuxent River MD								
Administrative Leadtime	(in Months): 2			Production Leadtime (in N	Months): 4		FY 2021 Dec 2020					
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021					
Contract Dates	Dec 2014	Dec 2015	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020					
Delivery Dates	Apr 2015	Apr 2016	Apr 2017	Apr 2018	Apr 2020	Apr 2021						

#### Installation Information

Method of Implementation: [none specified]:: Installation Name: Installation Material

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Installation Cost	Qty (Each) I Total Cost (\$ M)											
Prior Years	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2015	- 1 -	4/3.977	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	4 / 3.977
FY 2016	- 1 -	- 1 -	2 / 1.924	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2 / 1.924
FY 2017	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
FY 2018	- 1 -	- 1 -	- 1 -	- / 0.329	- 1 -	- / 0.329	2 / 2.024	- 1 -	- 1 -	- 1 -	- 1 -	2 / 2.353
FY 2019	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2 / 1.890	- 1 -	- 1 -	- 1 -	2 / 1.890
FY 2020	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	2 / 1.933	- 1 -	- 1 -	2 / 1.933
FY 2021	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	1 / 1.972	- 1 -	1 / 1.972
To Complete	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -	- 1 -
Total	- 1 -	4 / 3.977	2 / 1.924	- / 0.329	- 1 -	- / 0.329	2 / 2.024	2 / 1.890	2 / 1.933	1 / 1.972	- 1 -	13 / 14.049

#### Installation Schedule

	FY 2015 FY 2016 FY 2017 FY 2018 FY 2019							FY 2015 FY 2016				FY 2020					FY 2														
	PYS	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	TC	Tot
In	-	-	-	4	-	-	-	1	1	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	1	-	-	13
Out	-	-	-	-	4	-	-	-	1	1	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	1	-	13

#### Footnotes:

- (18) FY 2017 requested funding supports Design Support Activities (DSA) to include material purchases for the installation of two (2) ALIS in FY2018.
- (19) FY 2017 requested funding supports Design Support Activities (DSA) to include Alteration Installation Team support for the installation of two (2) ALIS in FY 2018.
- (20) FY 2017 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 2018.

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