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

February 2016



Navy

Justification Book Volume 2 of 5

Other Procurement, Navy

BA 2

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The estimated cost for this report for the Department of the Navy (DON) is \$46,476.

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.

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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.

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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)

14 Jan 2016

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

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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)

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

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Department of the Navy
 FY 2017 President's Budget
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 Total Obligational Authority
 (Dollars in Thousands)

14 Jan 2016

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

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Department of the Navy
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 (Dollars in Thousands)

14 Jan 2016

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

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Department of the Navy
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 (Dollars in Thousands)

14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ships Support Equipment											
Ship Propulsion Equipment											
1	LM-2500 Gas Turbine	A		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 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				13,983	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				8,631	U
14	Pollution Control Equipment	B		10,146		16,609				16,609	U
15	Submarine Support Equipment	A		11,815		10,498				10,498	U

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

14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 01: Ships Support Equipment									
Ship Propulsion Equipment									
1	LM-2500 Gas Turbine	A							U
2	Allison 501k Gas Turbine	A							U
3	Surface Power Equipment	A		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	A		63,942			63,942		U
Periscopes									
7	Sub Periscopes & Imaging Equip	A							U
Other Shipboard Equipment									
8	Sub Periscope, Imaging and Supt Equip Prog	A		136,421			136,421		U
9	DDG Mod	A		367,766			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	B		20,191			20,191		U
15	Submarine Support Equipment	A		8,995			8,995		U

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Department of the Navy
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14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
16	Virginia Class Support Equipment	A		69,168		35,747				35,747	U
17	LCS Class Support Equipment			25,742		39,349				39,349	U
18	Submarine Batteries			32,752		23,072				23,072	U
19	LPD Class Support Equipment			35,979		45,929				45,929	U
20	DDG 1000 Class Support Equipment	A									U
21	Strategic Platform Support Equip	A		11,558		18,563				18,563	U
22	DSSP Equipment	A		5,518		7,376				7,376	U
23	CG Modernization	A		375,500							U
24	LCAC	A		7,380		15,125				15,125	U
25	Underwater EOD Programs			58,576		51,652				51,652	U
26	Items Less Than \$5 Million	A		70,512		95,349				95,349	U
27	Chemical Warfare Detectors	A		2,937		3,027				3,027	U
28	Submarine Life Support System	A		8,385		7,399				7,399	U
	Reactor Plant Equipment										
29	Reactor Power Units	A		298,200							U
30	Reactor Components	A		288,822		296,095				296,095	U
	Ocean Engineering										
31	Diving and Salvage Equipment	A		10,572		15,982				15,982	U
	Small Boats										
32	Standard Boats	A		180,365		29,982				29,982	U

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Department of the Navy
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14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

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

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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Training Equipment											
33	Other Ships Training Equipment	A		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		26,735		19,841				19,841	U
43	AN/SQQ-89 Surf ASW Combat System	A		78,802		103,241				103,241	U
44	SSN Acoustics	A		160,932		232,835				232,835	U
45	SSN Acoustic Equipment	A									U
46	Undersea Warfare Support Equipment	A		4,663		7,331				7,331	U

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Department of the Navy
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 Total Obligational Authority
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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Training Equipment									
33	Other Ships Training Equipment	A							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)	A							U
Logistic Support									
41	LSD Midlife			10,813			10,813		U
Total Ships Support Equipment				1,878,390			1,878,390		
Budget Activity 02: Communications & Electronics Equip									
Ship Sonars									
42	SPQ-9B Radar	A		14,363			14,363		U
43	AN/SQQ-89 Surf ASW Combat System	A		90,029			90,029		U
44	SSN Acoustics	A							U
45	SSN Acoustic Equipment	A		248,765			248,765		U
46	Undersea Warfare Support Equipment	A		7,163			7,163		U

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 (Dollars in Thousands)

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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
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	A		10,653		8,396				8,396	U
50	Fixed Surveillance System	A		170,831		146,968				146,968	U
51	SURTASS	A		23,819		12,953				12,953	U
52	Maritime Patrol and Reconnaissance Force	A		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	A		123,362		138,002				138,002	U
55	Automated Identification System (AIS)			164		152				152	U
	Submarine Surveillance Equipment										
56	Submarine Support Equipment Prog	A		36,938		78,816				78,816	U
	Other Ship Electronic Equipment										
57	Cooperative Engagement Capability	B		33,939		25,695				25,695	U
58	Trusted Information System (TIS)			324		284				284	U
59	Naval Tactical Command Support System (NTCSS)	A		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	A		36,259		21,014				21,014	U

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Department of the Navy
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 (Dollars in Thousands)

14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

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

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Department of the Navy
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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
63	Shallow Water MCM	B									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	B		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	B		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	A		1,205		1,314			1,314		U
79	Maritime Integrated Broadcast System			3,447							U
80	Tactical/Mobile C4I Systems	A		16,766		13,600			13,600		U

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Department of the Navy
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Appropriation: 1810N Other Procurement, Navy

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

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Department of the Navy
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Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2015 (Base & OCO)		FY 2016 Base Enacted		FY 2016 OCO Enacted		FY 2016 Total Enacted		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
81	DCGS-N	A		23,649		31,809				31,809	U
82	CANES			355,046		275,641				275,641	U
83	RADIAC	A		5,153		8,294				8,294	U
84	CANES-Intell			61,215		28,695				28,695	U
85	GPETE	A		6,284		6,962				6,962	U
86	MASF					290				290	U
87	Integ Combat System Test Facility	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	A		64,235		66,176				66,176	U
Shipboard Communications											
90	Shipboard Tactical Communications	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 Equipment	A		64,954		60,945				60,945	U
Satellite Communications											
95	Satellite Communications Systems	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	A		4,369		4,591				4,591	U

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Department of the Navy
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14 Jan 2016

Appropriation: 1810N Other Procurement, Navy

Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
81	DCGS-N	A		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	A		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	A		17,366				17,366	U
91	Ship Communications Automation	A		102,479				102,479	U
92	Communications Items Under \$5M	A		10,403				10,403	U
Submarine Communications									
93	Submarine Broadcast Support	A		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	A		4,156				4,156	U

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
98	Electrical Power Systems Cryptographic Equipment	A		1,402		1,403				1,403	U
99	Info Systems Security Program (ISSP)	A		101,110		135,687				135,687	U
100	MIO Intel Exploitation Team Cryptologic Equipment	A		979		970				970	U
101	Cryptologic Communications Equip Other Electronic Support	A		11,502		11,433				11,433	U
102	Coast Guard Equipment	A		2,967		2,529				2,529	U
Total Communications & Electronics Equip				2,229,171		2,354,322				2,354,322	
Budget Activity 03: Aviation Support Equipment											

Sonobuoys											
103	Sonobuoys - All Types Aircraft Support Equipment	A		182,890		168,763				168,763	U
104	Weapons Range Support Equipment	A		47,944		46,979				46,979	U
105	Aircraft Support Equipment	A		55,195		123,884				123,884	U
106	Meteorological Equipment	A		12,825		15,090				15,090	U
107	DCRS/DPL	A		1,415		638				638	U
108	Airborne Mine Countermeasures	A		23,152		14,098				14,098	U
109	Aviation Support Equipment	A		47,105		49,773				49,773	U
Total Aviation Support Equipment				370,526		419,225				419,225	

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Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
98	Electrical Power Systems Cryptographic Equipment	A							U
99	Info Systems Security Program (ISSP)	A		85,694				85,694	U
100	MIO Intel Exploitation Team Cryptologic Equipment	A		920				920	U
101	Cryptologic Communications Equip Other Electronic Support	A		21,098				21,098	U
102	Coast Guard Equipment	A		32,291				32,291	U
Total Communications & Electronics Equip				2,122,908		12,000		2,134,908	
Budget Activity 03: Aviation Support Equipment									

Sonobuoys									
103	Sonobuoys - All Types	A		162,588				162,588	U
Aircraft Support Equipment									
104	Weapons Range Support Equipment	A		58,116				58,116	U
105	Aircraft Support Equipment	A		120,324				120,324	U
106	Meteorological Equipment	A		29,253				29,253	U
107	DCRS/DPL	A		632				632	U
108	Airborne Mine Countermeasures	A		29,097				29,097	U
109	Aviation Support Equipment	A		39,099				39,099	U
Total Aviation Support Equipment				439,109				439,109	

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

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Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			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	A		215,138				215,138	U
ASW Support Equipment									
114	SSN Combat Control Systems	A		130,715				130,715	U
115	ASW Support Equipment	A		26,431				26,431	U
Other Ordnance Support Equipment									
116	Explosive Ordnance Disposal Equip	B		11,821		99,329		111,150	U
117	Items Less Than \$5 Million	A		6,243				6,243	U
Other Expendable Ordnance									
118	Submarine Training Device Mods	A		48,020				48,020	U
119	Training Device Mods	A							U
120	Surface Training Equipment	A		97,514				97,514	U
Total Ordnance Support Equipment				933,565		99,329		1,032,894	

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Civil Engineering Support Equip -----											
Civil Engineering Support Equipment											
121	Passenger Carrying Vehicles	A		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	A		15,321		14,705				14,705	U
125	Tactical Vehicles	B		766		2,497				2,497	U
126	Amphibious Equipment	A		8,682		12,517				12,517	U
127	Pollution Control Equipment	A		2,942		3,018				3,018	U
128	Items Under \$5 Million	A		15,553		14,403				14,403	U
129	Physical Security Vehicles	A		1,177		1,186				1,186	U
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	A		11,387		18,805				18,805	U
131	Supply Equipment	A									U
132	Other Supply Support Equipment	A		6,674		10,469				10,469	U
133	First Destination Transportation	A		5,724		5,720				5,720	U
134	Special Purpose Supply Systems	A		69,098		211,714				211,714	U
Total Supply Support Equipment				92,883		246,708				246,708	

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Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 05: Civil Engineering Support Equip									

Civil Engineering Support Equipment									
121	Passenger Carrying Vehicles	A		8,853				8,853	U
122	General Purpose Trucks	A		4,928				4,928	U
123	Construction & Maintenance Equip	A		18,527				18,527	U
124	Fire Fighting Equipment	A		13,569		630		14,199	U
125	Tactical Vehicles	B		14,917				14,917	U
126	Amphibious Equipment	A		7,676				7,676	U
127	Pollution Control Equipment	A		2,321				2,321	U
128	Items Under \$5 Million	A		12,459				12,459	U
129	Physical Security Vehicles	A		1,095				1,095	U
	Total Civil Engineering Support Equip			84,345		630		84,975	
Budget Activity 06: Supply Support Equipment									

Supply Support Equipment									
130	Materials Handling Equipment	A							U
131	Supply Equipment	A		16,023				16,023	U
132	Other Supply Support Equipment	A							U
133	First Destination Transportation	A		5,115		25		5,140	U
134	Special Purpose Supply Systems	A		295,471				295,471	U
	Total Supply Support Equipment			316,609		25		316,634	

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 07: Personnel & Command Support Equip -----											
Training Devices											
135	Training Support Equipment	A		22,871		7,468				7,468	U
136	Training and Education Equipment	A									U
Command Support Equipment											
137	Command Support Equipment	A		26,238		36,433				36,433	U
138	Education Support Equipment	A		874		3,180				3,180	U
139	Medical Support Equipment	A		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	A		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	A		87,214		99,094				99,094	U
Other											
149	Cancelled Account Adjustments	A		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	U
Total Personnel & Command Support Equip				386,985		403,072				415,072	

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Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 07: Personnel & Command Support Equip -----									
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		47,742	U
138	Education Support Equipment	A							U
139	Medical Support Equipment	A		4,128				4,128	U
141	Naval MIP Support Equipment	A		1,925				1,925	U
142	Operating Forces Support Equipment	A		4,777				4,777	U
143	C4ISR Equipment	A		9,073				9,073	U
144	Environmental Support Equipment	A		21,107				21,107	U
145	Physical Security Equipment	A		100,906				100,906	U
146	Enterprise Information Technology	A		67,544				67,544	U
Other									
149	Cancelled Account Adjustments	A							U
150	Next Generation Enterprise Service	A		98,216				98,216	U
999	Classified Programs			9,915		1,660		11,575	U
Total Personnel & Command Support Equip				364,275		12,222		376,497	

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			Quantity	Cost	Quantity	Cost	Quantity	Cost	Quantity	Cost	
Budget Activity 08: Spares and Repair Parts											

Spares and Repair Parts											
151	Spares and Repair Parts	A	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		

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Line No	Item Nomenclature	Ident Code	FY 2017 Base		FY 2017 OCO		FY 2017 Total		S e c
			Quantity	Cost	Quantity	Cost	Quantity	Cost	
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		124,206		6,463,067		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2026 / SPQ-9B Radar
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	150.638	26.735	19.841	14.363	-	14.363	40.205	30.037	29.732	28.362	760.314	1,100.227
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	150.638	26.735	19.841	14.363	-	14.363	40.205	30.037	29.732	28.362	760.314	1,100.227
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	150.638	26.735	19.841	14.363	-	14.363	40.205	30.037	29.732	28.362	760.314	1,100.227

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.558	0.503	0.550	-	0.550	0.196	0.681	0.526	0.095	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$13.573 million to account for the availability of prior years execution balance.

This program provides for procurement of AN/SPQ-9B Radars whose primary mission is to detect and track low flying Anti-Ship Missile targets in heavy clutter. The mission of the AN/SPQ-9B is currently being expanded to include the capability to detect and classify periscopes with the completion and incorporation of a Periscope Detection and Discrimination (PDD) capability designed to operate concurrently with the Anti-Ship Missile Defense (ASMD) capability.

[BR5IN AN/SPQ-9B FMP INSTALLATIONS]: Provides funding to install AN/SPQ-9B Radar systems. AN/SPQ-9B systems are installed using Alteration Installation Teams (AITs) that require Planning Yard Design Services Allocation (DSA) funds one (1) and two (2) years prior to installation. Advance Planning (AP) is required one (1) year prior to installation.

[BR6IN AN/SPQ-9B NON FMP INSTALLATIONS]: Provides funding for the installation of equipment for Land Based Test Sites (LBTS).

[P40A / BR040 TRANSMITTER UPGRADE FMP]: Funding is provided for installations of AN/SPQ-9B Transmitter Upgrades on LPD-17.

[P40A / BR040 TRANSMITTER UPGRADE NON-FMP EQUIPMENT]: Funding provided for Transmitter Upgrade Processor installations at Surface Warfare Engineering Facility (SWEF) and Combat Systems Engineering Development Site (CESDS) (both non-FMP).

[P40A / BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)]: Procures product improvements generated by Engineering Change Proposals (ECPs); corrects problems reported by Fleet units; upgrades unreliable components and replaces obsolete components and parts no longer in production for AN/SPQ-9B Radar; and addresses supportability concerns. Purchases and installs ECPs, including Antenna Shock Upgrade Kits, Antenna Radar Components, Digital Signal Processor (DSP) Kits, Periscope Detection and Discrimination (PDD) Kits and engineering change kit hardware components. Antenna Shock Upgrade Kits will be installed during Antenna Restorations. DSP and PDD kits will be installed conjunctively via Alteration Installation Team (AIT) and can be accomplished outside of a CNO Availability.

[P40A / BR830 AN/SPQ-9B PRODUCTION SUPPORT]: Supports the AN/SPQ-9B Radar program In-Service Engineering Agent (ISEA), Software Support Activity (SSA), Integrated Logistics Agent (ILA), Acquisition Engineering Agent (AEA), and Technical Design Agent (TDA). Also includes support for production of hardware and production hardware components related to Engineering Change Proposals (ECPs) and software certification.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2026 / SPQ-9B Radar
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	
<p>[P40A / BRCA1 AN/SPQ-9B RADAR COMPONENTS]: Funding was provided via Congressional Plus Up to procure AN/SPQ-9B Radars, Transmitter Upgrades (TUP), Antennas, sub-components, software and modifications.</p> <p>[P40A / BRCA2 AN/SPQ-9B RADAR COMPONENTS]: Funding was provided via Congressional Plus Up to procure AN/SPQ-9B Radars, Transmitter Upgrades (TUP), Antennas, sub-components, software and modifications.</p> <p>[P3A / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT]: Procures AN/SPQ-9B Radars to add Anti-Ship Missile Defense (ASMD) capability to Shipboard Combat Systems. Procures radars to support combat systems on the following ship classes: CG, LHA, DDG, CVN, LHD, LPD, U.S. Coast Guard National Security Cutter and a Training Unit. Systems procured for Cruisers/Destroyers (CRUDES) and Amphibious Ships in FY12 and beyond will also include the Periscope Detection and Discrimination (PDD) capability. Procures AN/SPQ-9B Technical Data Package (TDP) using FY14 funding to enable production contract competition.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars **P-1 Line Item Number / Title:**
2026 / SPQ-9B Radar

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SPQ-9B Radar	P-5a		- / 105.131	- / 9.734	- / 12.984	- / 3.636	- / -	- / 3.636
P-3a	1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT (TBD)			- / 45.507	- / 17.001	- / 6.857	- / 10.727	- / -	- / 10.727
P-40	Total Gross/Weapon System Cost			- / 150.638	- / 26.735	- / 19.841	- / 14.363	- / -	- / 14.363

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SPQ-9B Radar	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT (TBD)			- / 27.489	- / 21.181	- / 22.557	- / 21.918	- / 709.180	- / 882.417
P-40	Total Gross/Weapon System Cost			- / 40.205	- / 30.037	- / 29.732	- / 28.362	- / 760.314	- / 1,100.227

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2026 / SPQ-9B Radar						Aggregated Items Title: SPQ-9B Radar								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) BR040 AN/SPQ-9B RADAR																				
1.1) BR040 ANTENNA	A		2,529K	7	17.701	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) BR040 ANTENNA TEST STAND	A		1,025K	1	1.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) BR040 TRANSMITTER UPGRADE FMP	A		-	-	12.961	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.4) BR040 TRANSMITTER UPGRADE NON-FMP EQUIPMENT	A		-	-	2.958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) BR040 AN/SPQ-9B RADAR			-	-	34.645	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2) BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)																				
2.1) BR042 MISCELLANEOUS ECPs	A		-	-	12.907	-	-	1.518	-	-	1.422	-	-	0.522	-	-	-	-	-	0.522
2.2) BR042 ANTENNA SHOCK UPGRADE KITS ^(†)	A		527,428.57	7	3.692	-	-	-	637,000.00	2	1.274	-	-	-	-	-	-	-	-	-
2.3) BR042 DIGITAL SIGNAL PROCESSOR KITS - PROCUREMENTS ^(†)	A		300,307.69	13	3.904	250,000.00	6	1.500	254,500.00	2	0.509	-	-	-	-	-	-	-	-	-
2.4) BR042 DIGITAL SIGNAL PROCESSOR KITS - INSTALLS	A		56,000.00	5	0.280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.5) BR042 PDD KITS - PROCUREMENT ^{(1)(†)}	A		742,176.47	17	12.617	789,000.00	6	4.734	804,000.00	9	7.236	-	-	-	-	-	-	-	-	-
2.6) BR042 PDD KITS - INSTALLS	A		240,000.00	9	2.160	-	-	-	-	-	-	271,454.55	4	1.086	-	-	-	271,454.55	4	1.086
Subtotal: 2) BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)			-	-	35.560	-	-	7.752	-	-	10.441	-	-	1.608	-	-	-	-	-	1.608
3) BR830 AN/SPQ-9B PRODUCTION SUPPORT																				
3.1) BR830 AN/SPQ-9B PRODUCTION SUPPORT	A		-	-	13.299	-	-	1.982	-	-	2.543	-	-	2.028	-	-	-	-	-	2.028
Subtotal: 3) BR830 AN/SPQ-9B PRODUCTION SUPPORT			-	-	13.299	-	-	1.982	-	-	2.543	-	-	2.028	-	-	-	-	-	2.028
4) BRCA1 AN/SPQ-9B RADAR COMPONENTS																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2026 / SPQ-9B Radar **Aggregated Items Title:** SPQ-9B Radar

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
4.1) BRCA1 AN/SPQ-9B RADAR COMPONENTS	A		7,400K	2	14.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 4) BRCA1 AN/SPQ-9B RADAR COMPONENTS			-	-	14.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5) BRCA2 AN/SPQ-9B RADAR COMPONENTS																				
5.1) BRCA2 AN/SPQ-9B RADAR COMPONENTS	A		6,800K	1	6.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 5) BRCA2 AN/SPQ-9B RADAR COMPONENTS			-	-	6.800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6) WAXXX ACQUISITION WORKFORCE FUND																				
6.1) WAXXX ACQUISITION WORKFORCE FUND-2009	A		-	-	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 6) WAXXX ACQUISITION WORKFORCE FUND			-	-	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			-	-	105.131	-	-	9.734	-	-	12.984	-	-	3.636	-	-	-	-	-	3.636

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

(†) indicates the presence of a P-5a

Footnotes:

(1) The DSP kit is less expensive than prior years due to circuit card assembly (CCA) hardware reduction. The PDD kit unit cost is slightly higher due to an increase in hardware components. Changes to the kits were necessary to maintain availability and supportability of the LRUs. In addition, beginning in FY14, the DSP and PDD kits will be conjunctively installed as a cost savings measure; therefore, there is just one installation cost. The conjunctive installation cost is shown in PDD installation line.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2026 / SPQ-9B Radar	Aggregated Items: SPQ-9B Radar
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
2) BR042 AN/SPQ-9B ENGINEERING CHANGE PROPOSALS (ECP)												
2.2) BR042 ANTENNA SHOCK UPGRADE KITS		2016	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	May 2017	2	637,000.00	Y		Nov 2014
2.3) BR042 DIGITAL SIGNAL PROCESSOR KITS - PROCUREMENTS		2014	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	May 2017	8	250,000.00	Y		Nov 2014
2.3) BR042 DIGITAL SIGNAL PROCESSOR KITS - PROCUREMENTS		2015	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	Jan 2018	6	250,000.00	Y		Nov 2014
2.3) BR042 DIGITAL SIGNAL PROCESSOR KITS - PROCUREMENTS		2016	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	Jul 2018	2	254,500.00	Y		Nov 2014
2.5) BR042 PDD KITS - PROCUREMENT ⁽¹⁾		2014	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	Aug 2017	8	789,000.00	Y		Nov 2014
2.5) BR042 PDD KITS - PROCUREMENT ⁽¹⁾		2015	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	Apr 2018	6	789,000.00	Y		Nov 2014
2.5) BR042 PDD KITS - PROCUREMENT ⁽¹⁾		2016	NORTHROP GRUMMAN / BALTIMORE, MARYLAND	SS / FP	WASHINGTON NAVY YARD	May 2016	Oct 2018	9	804,000.00	Y		Nov 2014

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2026 / SPQ-9B Radar				Modification Number / Title: 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	45.507	17.001	6.857	10.727	-	10.727	27.489	21.181	22.557	21.918	709.180	882.417
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	45.507	17.001	6.857	10.727	-	10.727	27.489	21.181	22.557	21.918	709.180	882.417
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	45.507	17.001	6.857	10.727	-	10.727	27.489	21.181	22.557	21.918	709.180	882.417
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[BR040 AN/SPQ-9B RADAR FMP EQUIPMENT] Procures AN/SPQ-9B Radars to add Anti-Ship Missile Defense (ASMD) capability to Shipboard Combat Systems. Procures radars to support combat systems on the following ship classes: CG, LHA, DDG, CVN, LHD, LPD, U.S. Coast Guard National Security Cutter and a Training Unit. Systems procured for Cruisers/Destroyer(CRUDES) and Amphibious Ships in FY12 and beyond will also include the Periscope Detection and Discrimination (PDD) capability. Procures AN/SPQ-9B Technical Data Package (TDP) using FY14 funding to enable production contract competition.

Notes: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT:

- 1) The follow-on contract was awarded in December 2015. This contract includes a total of twelve (12) FY14, FY15 and FY16 SPQ-9B radars being procured across all appropriations (OPN, SCN, FMS). The first radar will be delivered 22 months after award. All follow-on radars will be delivered at a rate of one every other month. Due to delayed contract award, the unit procured with FY14 funds will replace a system previously procured under Cruiser Modernization for CG61 which was diverted to meet the installation schedule requirements for LHD 2 in FY16. The installation on LHD 2 was fully funded in FY14.
- 2) N96 Letter 4000 Ser N96-00-714 dated 10 APR 2014 redirected the FY13 AN/SPQ-9B procurement for installation at Pacific Missile Range Facility (PMRF) for Air Missile Defense Radar (AMDR) development testing and the utilization of FY14 funding for procurement of the AN/SPQ-9B Technical Data Package (TDP) instead of procurement of an AN/SPQ-9B radar. The resulting surplus of FY14 and FY15 installation funds will be used to forward fund Design Services Allocation (DSA)/Advance Planning (AP).
- 3) Prior to FY03, five (5) AN/SPQ-9B systems were funded under the Mk 86 program (BLI 5110). When BLI 2026 was established, only the install funding for four (4) out of the five (5) prior procurements under 5110 was transferred to this BLI. Non-FMP systems are not included in this installation schedule. AN/SPQ-9B systems are installed using Alteration Installation Teams (AITs) that require Planning Yard DSA funds one (1) and two (2) years prior to installation, and AP funds are required one (1) year prior to installation (with the exception of the FY15 and FY16 procurements).

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2026 / SPQ-9B Radar	Modification Number / Title: 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT

Models of Systems Affected: AN/SPQ-9B RADAR FMP EQUIPMENT	Modification Type: TBD	Related RDT&E PEs: 0604501N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT												
B Kits												
Recurring												
1.1.1) BR040 AN/SPQ-9B RADAR FMP EQUIPMENT - NonOrganic ⁽²⁾	4 / 27.796	2 / 13.654	1 / 6.857	1 / 7.338	- / -	1 / 7.338	3 / 22.449	2 / 15.266	2 / 15.570	2 / 15.882	60 / 487.549	77 / 612.361
1.1.2) BR040 AN/SPQ-9B NON-RECURRING (TDP) - Organic	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.000
<i>Subtotal: Recurring</i>	- / 29.796	- / 13.654	- / 6.857	- / 7.338	- / -	- / 7.338	- / 22.449	- / 15.266	- / 15.570	- / 15.882	- / 487.549	- / 614.361
<i>Subtotal: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT</i>	4 / 29.796	2 / 13.654	1 / 6.857	1 / 7.338	- / -	1 / 7.338	3 / 22.449	2 / 15.266	2 / 15.570	2 / 15.882	60 / 487.549	77 / 614.361
<i>Subtotal: Procurement, All Modification Items</i>	- / 29.796	- / 13.654	- / 6.857	- / 7.338	- / -	- / 7.338	- / 22.449	- / 15.266	- / 15.570	- / 15.882	- / 487.549	- / 614.361

Installation

Modification Item 1 of 1: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT	- / 15.711	- / 3.347	- / -	- / 3.389	- / -	- / 3.389	- / 5.040	- / 5.915	- / 6.987	- / 6.036	- / 221.631	- / 268.056
<i>Subtotal: Installation</i>	- / 15.711	- / 3.347	- / -	- / 3.389	- / -	- / 3.389	- / 5.040	- / 5.915	- / 6.987	- / 6.036	- / 221.631	- / 268.056

Total

Total Cost (Procurement + Support + Installation)	45.507	17.001	6.857	10.727	-	10.727	27.489	21.181	22.557	21.918	709.180	882.417
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2026 / SPQ-9B Radar	Modification Number / Title: 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT

Modification Item 1 of 1: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT

Manufacturer Information

Manufacturer Name: NORTHROP GRUMMAN	Manufacturer Location: BALTIMORE, MD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2015	Dec 2015	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Dec 2017	Apr 2018	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022

Installation Information

Method of Implementation: [none specified]:: Installation Name: BR040 AN/SPQ-9B RADAR FMP EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 15.711	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 15.711
FY 2015	- / -	- / 12.653	- / -	- / 1.450	- / -	- / 1.450	2 / 1.484	- / -	- / -	- / -	- / -	2 / 5.587
FY 2016	- / -	- / 10.694	- / -	- / 1.400	- / -	- / 1.400	1 / 0.700	- / -	- / -	- / -	- / -	1 / 2.794
FY 2017	- / -	- / -	- / -	- / 0.539	- / -	- / 0.539	- / 1.216	1 / 1.075	- / -	- / -	- / -	1 / 2.830
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.640	- / 3.710	3 / 3.279	- / -	- / -	3 / 8.629
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.130	- / 2.556	2 / 2.258	- / -	2 / 5.944
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.152	- / 2.604	2 / 2.302	2 / 6.058
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.174	2 / 5.006	2 / 6.180
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 214.323	60 / 214.323
Total	8 / 15.711	- / 13.347	- / -	- / 1.389	- / -	- / 1.389	3 / 5.040	1 / 5.915	3 / 6.987	2 / 6.036	64 / 221.631	81 / 268.056

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1	-	-	1	1	1	-	-	1	1	-	64	81
Out	7	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	1	-	1	-	-	1	1	1	-	-	1	1	64	81

Footnotes:
 (2) 1) The follow-on contract was awarded in December 2015. This contract includes a total of twelve (12) FY14, FY15 and FY16 SPQ-9B radars being procured across all appropriations (OPN, SCN, FMS). The first radar will be delivered 22 months after award. All follow-on radars will be delivered at a rate of one every other month. Due to delayed contract award, the unit procured with FY14 funds will replace a system previously procured under Cruiser Modernization for CG61 which was diverted to meet the installation schedule requirements for LHD 2 in FY16. The installation on LHD 2 was fully funded in FY14. 2) N96 Letter 4000 Ser N96-00-714 dated 10 APR 2014 redirected the FY13 AN/SPQ-9B procurement for installation at Pacific Missile Range Facility (PMRF) for Air Missile Defense Radar (AMDR) development testing and the utilization of FY14 funding for procurement of the AN/SPQ-9B Technical Data Package (TDP) instead of procurement of an AN/SPQ-9B radar. The resulting surplus of FY14 and FY15 installation funds will be

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2026 / SPQ-9B Radar	Modification Number / Title: 1 / BR040 AN/SPQ-9B RADAR FMP EQUIPMENT

used to forward fund Design Services Allocation (DSA)/Advance Planning (AP). 3) Prior to FY03, five (5) AN/SPQ-9B systems were funded under the Mk 86 program (BLI 5110). When BLI 2026 was established, only the install funding for four (4) out of the five (5) prior procurements under 5110 was transferred to this BLI. Non-FMP systems are not included in this installation schedule. AN/SPQ-9B systems are installed using Alteration Installation Teams (AITs) that require Planning Yard DSA funds one (1) and two (2) years prior to installation, and AP funds are required one (1) year prior to installation (with the exception of the FY15 and FY16 procurements).

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205620N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,607.011	78.802	103.241	90.029	-	90.029	115.096	137.643	134.047	136.740	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,607.011	78.802	103.241	90.029	-	90.029	115.096	137.643	134.047	136.740	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,607.011	78.802	103.241	90.029	-	90.029	115.096	137.643	134.047	136.740	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.946	2.927	2.058	-	2.058	0.595	2.101	0.867	0.717	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$3.583 million to account for the availability of prior years execution balance.

The Navy's Strategy is to remain the preeminent maritime power, providing the U.S. a global expeditionary force committed to security and prosperity, while defending the Nation's interests. Within this vision, Anti-Submarine Warfare (ASW) remains a Navy core competency in a dynamic and uncertain maritime environment. U.S. adversaries continue to develop asymmetric capabilities and capacities to deter, disrupt, or delay the entry of U.S. and allied naval forces, and pose a constant challenge as the Maritime Strategy is implemented. Evolving submarine technologies offer enhanced stealth, speed, endurance, weapons, and operational proficiency, trends foretelling that the adversary submarine of the future will have a significantly larger sphere of influence, while presenting less vulnerability to ASW forces. The effective offensive engagement range of the adversary submarine of the future will continue to match or outrange individual U.S. and multinational platform sensors and weapons in many tactical environments. Submarines are an increasing threat to all Naval and Allied ships, particularly modern diesel subs and faster torpedoes. Not only can the presence of potential hostile submarines delay naval combatant action until they are located and neutralized, submarines can also disrupt all seaborne logistics supply for any ground campaign as well as maritime commerce. ASW forces must be effective in all operating environments, ranging from the deep open ocean to the littorals, and are key to countering adversarial anti-access and area denial strategies.

The AN/SQQ-89(V) Surface Ship ASW Combat System provides integrated Undersea Warfare (USW) combat management, fire control, command and control, and on-board training to enable surface combatants to engage USW targets in both open ocean and littoral environments. The AN/SQQ-89(V) is a system comprised of many subsystems, which integrate the helo and its sensors, the ship's own organic sensors, weapons, torpedo detection, and a high fidelity Surface ASW Synthetic Trainer (SAST). The AN/SQQ-89(V) was established as an Acquisition Category (ACAT) I acquisition program in 1983 and re-designated an ACAT IC program in 1990. In 1998, the AN/SQQ-89(V) program was deemed to be 90% complete and removed from the Major Defense Acquisition Program (MDAP) list.

Variants of the AN/SQQ-89(V) are currently in operation on practically all in-service CG47 and DDG51 Class Surface Combatants. The AN/SQQ-89(V) is also programmed for all in-line, new construction DDG51 Class ships under Shipbuilding and Conversion, Navy (SC,N) Budget Line Item (BLI) 2122, while a separate AN/SQQ-90 version is programmed for all in-line, new construction DDG1000 Class ships under SC,N BLI 2119.

AN/SQQ-89A(V)15 Surface Ship USW Combat System Upgrade - Detailed Description:

A major upgrade to the AN/SQQ-89(V) legacy system, the AN/SQQ-89A(V)15 upgrade significantly decreases ship vulnerability to torpedo attack, improves surface ship USW shallow water warfighting capability in the littoral, and mitigates Commercial-Off-The-Shelf (COTS) obsolescence and supportability issues. The AN/SQQ-89A(V)15 upgrade was reported as a critical need for surface ASW operations by SECNAV. A Fleet Forces Command (FFC) Urgent Operational Need (UON) report identified the Fleet need for AN/SQQ-89A(V)15 upgrades. The need for the AN/SQQ-89A(V)15 is also articulated in the U.S. Pacific

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205620N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Command (PACOM) Integrated Priorities List (IPL); in an Office of the Chief of Naval Operations (OPNAV) funding priorities letter; in a 7th Fleet Bottom Up review report; and in the U.S. Fleet Forces ASW Integrated Priorities Capability List (IPCL).</p> <p>The AN/SQQ-89A(V)15 upgrade is programmed for backfit on: Select CG47 Class Baseline 3 and 4 (CG59-73) ships via OP,N BLI 0960 (Cruiser Modernization); DDG51 Class Flight I/II (DDG51-78) ships via OP,N BLI 0900 (DDG Modernization) and OP,N BLI 2136 (represented here); and DDG51 Class Flight IIA and follow (DDG79+) ships via OP,N BLI 2136 (represented here).</p> <p>The AN/SQQ-89A(V)15 upgrade, developed under RDT&E,N PE 0205620N, capitalizes on previously fielded AN/SQQ-89(V)15 systems. The AN/SQQ-89A(V)15 is comprised of a tactical towed array sensor, the TB-37 Multi-Function Towed Array (MFTA), and will replace standard, militarized, legacy components with Commercial-Off-The-Shelf (COTS) hardware to provide an ASW combat system with the capability for mid-frequency bistatic and multi-static sonar operations. The AN/SQQ-89A(V)15 features a mid-frequency bistatic hull/towed Sonar Echo Tracker Classifier (ETC); hull/towed Sonar with Acoustic Intercept (ACI) fused data for significantly improved torpedo defense; Handling & Stowage Group (H&SG) for MFTA operation; Torpedo Setting Panel (TSP); passive towed array processing; common sub/surface sensor performance and prediction; common NAVAIR/Surface Light Airborne Multi-Purpose System (LAMPS) processing; portable software; integrated supportability; and on-board training via the SAST. The AN/SQQ-89A(V)15 will be interoperable with AEGIS Weapons System (AWS) baselines; is Open Architecture (OA) compliant (meeting OA Level 3 requirements); provides significant reductions in weight, space, cooling, and power requirements over legacy AN/SQQ-89(V) systems; is Grade A shock qualified; supports Digital Fire Control Integration (DFCI) capability; and is integrated with the Battle Force Tactical Trainer (BFTT).</p> <p>Additionally, to be effective against increasingly stealthy threats in an often ambiguous undersea environment, future sensors must be environmentally adaptive, have very low false alarm rates, and exploit the full range of current and future submarine detection vulnerabilities. Via the Advanced Capability Build (ACB) process under RDT&E,N PE 0205620N (ACB-13, ACB-15, ACB-17, etc.), these types of maturing/proven USW technologies will be folded into the AN/SQQ-89A(V)15 production and future technology refresh programs.</p> <p>The majority of the AN/SQQ-89A(V)15 system equipment is procured via the prime vendor (currently Lockheed Martin, NY and VA, with subcontract to Advanced Acoustic Concepts (AAC), NY and PA), while other Contractor Furnished Equipment (CFE), such as that for the TB-37 MFTA, OK-410 H&SG, SAST, Static Automated Bus Transfer System (SABTS), TSP, Calibrated Reference Hydrophone (CRH) Junction Box, Portable Towed Array Test Set (PTATS), On Board Repair Parts (OBRPs), Maintenance Assist Modules (MAMS), Installation Checkout (INCO) Spares, and Special Tools and Test Equipment (STTE), is procured via other, separate, contract/funding vehicles.</p> <p>An average, aggregate AN/SQQ-89A(V)15 shipset unit cost is indicated on the applicable budget exhibits, however, it should be noted that this unit cost is comprised of multiple contract/funding vehicles as mentioned above. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship.</p> <p>AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities. Fleet availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every two years in a ship's schedule.</p> <p>[P40A / DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15]: DB400 Cost Elements/Descriptions as Follows:</p> <p>[P40A / SYSTEM UPDATES (NON RECURRING ENGINEERING)]: Consists of the NRE efforts associated with the technology refresh/replacement of legacy AN/SQQ-89(V) equipment with updated Commercial-Off-The-Shelf (COTS) processors, including material procurement, fabrication, and integration of Government Furnished Property (GFP), as performed by the prime contractor. Hardware reviews will be conducted on an annual basis to determine if hardware changes are warranted based on Commercial-Off-The-Shelf (COTS) obsolescence and to identify applicable state-of-the-practice hardware components. This line also includes start-up/transition funding required for the AN/SQQ-89(V) prime in the first year of a new production/design agent contract.</p> <p>[P40A / MFTA (MULTI-FUNCTION TOWED ARRAY) MAJOR EQUIPMENT]: Procurement of TB-37 MFTA equipment in support of the following: full retrofit on DDG51 Class ships that currently employ pre-production shipset versions; and full module sets required for expeditious replacement in the event of major damage (the TB-37 MFTA component is considered a principle item). The TB-37 MFTA is a key</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205620N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>component of the AN/SQQ-89A(V)15 upgrade on Surface Combatants and enables ships to have active bi-statics, Continuous Active Sonar (CAS), adaptive beamforming, passive bellringers, and the use of new sensors for advanced torpedo detection.</p> <p>[P40A / CSSQT (COMBAT SYSTEMS SHIP QUALIFICATION TRIALS)]: CSSQTs are required per Naval Sea Systems Instruction 90963.1C for all ships undergoing significant conversion/modernization availabilities. CSSQTs consist of a series of at-sea exercises and tests to verify/certify the AN/SQQ-89A(V)15 or AN/SQQ-89A(V)15 Technology Refresh system has been installed properly and can be operated and maintained safely and effectively. CSSQTs follow every AN/SQQ-89A(V)15 FLT I/II/IIA first-of-its-kind or AN/SQQ-89A(V)15 Technology Refresh installation.</p> <p>Note: CSSQT costs are dependent on the number, scope and complexity of CSSQTs planned per Fiscal Year (FY). CSSQTs planned for AN/SQQ-89A(V)15 FLT I/II/IIA installs are higher in cost, scope and complexity than those for AN/SQQ-89A(V)15 Technology Refreshes. In FY 2016 (\$4.344M), five (5) CSSQTs are planned (three for AN/SQQ-89A(V)15 FLT IIA installs and two for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2017 (\$4.206M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs).</p> <p>[P40A / FOT&E (FOLLOW-ON OPERATIONAL TEST & EVALUATION)]: Represents the final independent test of each new increment of the AN/SQQ-89A(V)15 production baseline (i.e. ACB-13, ACB-15, ACB-17, etc.) conducted in support of the Director, Operational Test and Evaluation Title X review and report to the Congress. Follow-On Operational Test & Evaluation events are conducted to ensure each increment meets the operational effectiveness and suitability requirements for each incremental AN/SQQ-89 ACB production baseline, along with its readiness and performance goals. Each test cycle is planned the year after initial ACB baseline fielding to allow time for installation and to verify performance prior to conducting the FOT&E.</p> <p>Note: FOT&E costs are primarily biannual driven, and dependent on the scope and complexity of the next new AN/SQQ-89 Advanced Capability Build (ACB) production baseline release being tested. There is no requirement to conduct an FOT&E event in FY 2016. In FY 2017 (\$1.542M), funding is required to conduct an FOT&E event on the next new AN/SQQ-89 ACB production baseline release.</p> <p>[P40A / EC'S (ENGINEERING CHANGES)]: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades to previously fielded and in-production AN/SQQ-89A(V)15 systems. Funding will be used to support non-recurring first article test efforts associated with the changing COTS environment as well as Reliability, Maintainability, and Availability (RM&A) modifications requested by the Fleet; correct deficiencies identified through Fleet use; upgrade unreliable components; replace obsolete components; and correct design errors found during testing.</p> <p>[P40A / ILS (INTEGRATED LOGISTICS SUPPORT)]: Funding is provided for all ILS planning and coordination elements associated with every AN/SQQ-89A(V)15 modification/procurement/installation, including: configuration management and control of the hardware and software associated with each modification such as Maintenance and Material Management (3M); planned and corrective maintenance procedures and drawings; supporting the procurement of upgrades to Technical Training Equipment (TTE) for shore training sites; changes to maintenance concepts and associated updates to technical documentation, such as technical manuals; development of revisions to both operator and maintenance training materials as part of the initial training curriculum development; revisions to the Navy Training System Plan; initial conduct of instructor training (train-the-trainer) until such time that the training community assumes the responsibility; modifications to supply support related provisioning data and identification of related changes to Allowance Parts Lists (APLs) and Program Support Data (PSD) spares procurement lists; and Packaging, Handling, Storage and Transportation (PHST) support during the procurement, Installation and Checkout (INCO), and testing stages of the AN/SQQ-89A(V)15 to meet evolving capabilities.</p> <p>[P40A / FLTASWTRACEN (FLEET ASW TRAINING CENTER)]: Upgrade of AN/SQQ-89A(V)15 training equipment for the Fleet ASW Training Center, San Diego, CA. Training system improvements are a critical factor in achieving warfighter competencies and mission readiness. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines and to implement Fleet prioritized warfighting training improvements to meet evolving capabilities.</p> <p>Note: FLTASWTRACEN costs are primarily biannual driven, and dependent on the scope and complexity of training equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2016 (\$0.647M), funding is required to upgrade the equipment at FLTASWTRACEN. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2017.</p> <p>[P40A / AIE (AEGIS INTEGRATION EVENTS)]: Recurring engineering services associated with AN/SQQ-89A(V)15 equipment at the ACSC Wallops Island, VA test facility for interoperability risk reduction analysis purposes, necessary to ensure system compatibility with respective AWS baselines prior to installation.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205620N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Note: Cost increase for AIE test execution and analysis, combat system safety and certification efforts, and tools and simulation support from FY 2016 (\$1.921M) to FY 2017 (\$2.640M) was driven by the addition of three (3) new capabilities/interfaces to be tested/certified in FY 2017, the Computer Aided Dead Reckoning Tracer (CADRT), AN/SPS-67 radar, and Surface ASW Synthetic Trainer (SAST).</p> <p>[P40A / SSES (SURFACE SHIP ENGINEERING SITE)]: Procurement of AN/SQQ-89A(V)15 equipment for land based sites, including the SSES at the prime vendor's facility, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines.</p> <p>Note: SSES costs are primarily biannual driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2016 (\$3.267M), funding is required to upgrade the equipment at the SSES land based site. There is no requirement to upgrade equipment at the SSES land based site in FY 2017.</p> <p>[P40A / ACSC (AEGIS COMBAT SYSTEMS CENTER)]: Procurement of AN/SQQ-89A(V)15 equipment for land based sites including the ACSC at Wallops Island, VA, to support production system integration and interoperability testing. Equipment includes simulation hardware, test tools, fabrication and test of mod kits (hardware and operational software), and laboratory equipment. Equipment must be upgraded periodically to ensure continued support of the latest backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines.</p> <p>Note: ACSC costs are primarily biannual driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the SSES land based site in FY 2016. In FY 2017 (\$1.957M), funding is required to upgrade the equipment at the ACSC land based site.</p> <p>[P40A / DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15]: DB830 Cost Element/Description as Follows:</p> <p>[P40A / PRODUCTION ENGINEERING]: Funding is for AN/SQQ-89A(V)15 program In-Service Engineering Agent (ISEA), Software Support Activity (SSA), Acquisition Engineering Agent (AEA), and Technical Design Agent (TDA) efforts in performing the following functions: writing of contracts; review and evaluation of production design data, documentation and Contract Data Requirements Lists (CDRLs); letting of production contract awards; on-site engineering support at the prime integrator's facility; production configuration control and quality assurance (Production Inspection Test (PIT) and Production Reliability Acceptance Test (PRAT)); witnessing of segment/system integration tests and preparation of reports; conduct of first article and factory acceptance tests; collection of performance metrics; generation/assessment of Software Problem Reports (SPRs) and coordination with vendors; value and maintenance engineering; coordination with AEGIS regarding interface definition and ship integration; support safety review and AEGIS Integration Events (AIE); provide plans, procedures and inputs to support Information Assurance (IA) mandates; provide status reports and technical briefings; support meetings with program office; and all other production support efforts directly related to delivery of AN/SQQ-89A(V)15 software and hardware.</p> <p>[P40A / DB900 - CONSULTING SERVICES - SQQ-89A(V)15]: DB900 Cost Element/Description as Follows:</p> <p>[P40A / CONSULTING SERVICES]: Funding to provide assistance in the following areas: program and financial management; system specification validation; production planning; business case and market analyses; vendor cost, schedule, performance, production, and contract deliverable monitoring; installation planning and coordination; Integrated Logistics Support (ILS) asset management, planning, documentation, and coordination; and evaluation of Engineering Change Proposals (ECPs).</p> <p>[P3A / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE]: DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on all DDG79-112 Flight IIA ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship. DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205620N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P3A - 2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE]: DB400 PROCUREMENT: Procurement of a subset of AN/SQQ-89A(V)15 equipment, specifically the TB-37 Multi-Function Towed Array (MFTA) and Handling & Stowage Group (H&SG), for subsequent installation on all DDG113 and follow ships during their Post Delivery Availability (PDA) (for the DDG113 lead ship), or Post Shakedown Availability (PSA) (for DDG114 and follow ships). DB6IN INSTALLATION: Funding is for the physical installation of the H&SG and TB-37 MFTA on DDG113 and follow ships during their PDA or PSA period which includes the installation of an egress, under-deck stiffeners, cables, bulkheads, opening and closing of the transom, the winch, levelwind, fairlead and control station, decking, painting, and final system testing, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>[P3A - 3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE]: DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on select DDG51-78 FLT I/II ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship. DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p> <p>[P3A - 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH]: DB400 PROCUREMENT: Procurement of software/hardware technology upgrades for all CG47/DDG51 Class surface combatant platforms with a previously fielded AN/SQQ-89A(V)15, as necessary to manage obsolescence, take advantage of commercial development efforts, and continue to pace the threat and ensure the system remains effective well into the 21st century. Updating the hardware and software will ensure the Fleet maintains critical Undersea Warfare capability while reducing obsolescence. Establishing a technology refresh program provides a method for rapid response to meet Fleet Anti-Submarine Warfare (ASW) requirements. DB6IN INSTALLATION: Funding is for the physical installation of the AN/SQQ-89A(V)15 Technology Refresh upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars

P-1 Line Item Number / Title:
2136 / AN/SQQ-89 Surf ASW Cmbt Sys

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205620N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM	P-5a		- / 1,261.144	- / 17.907	- / 21.531	- / 21.853	- / -	- / 21.853
P-3a	1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE (Warfighting Capability)			- / 331.460	- / 37.163	- / 36.743	- / 21.966	- / -	- / 21.966
P-3a	2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE (Warfighting Capability)			- / 5.795	- / 10.382	- / 7.482	- / 13.255	- / -	- / 13.255
P-3a	3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE (Warfighting Capability)			- / 0.000	- / -	- / 18.905	- / 11.720	- / -	- / 11.720
P-3a	4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH (Warfighting Capability)			- / 8.612	- / 13.350	- / 18.580	- / 21.235	- / -	- / 21.235
P-40	Total Gross/Weapon System Cost			- / 1,607.011	- / 78.802	- / 103.241	- / 90.029	- / -	- / 90.029

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE (Warfighting Capability)			- / 21.406	- / 17.148	- / 5.867	- / 4.784	- / 18.554	- / 495.091
P-3a	2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE (Warfighting Capability)			- / 15.284	- / 15.558	- / 15.838	- / 16.123	Continuing	Continuing
P-3a	3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE (Warfighting Capability)			- / 7.865	- / 23.154	- / 32.441	- / 20.885	- / 15.755	- / 130.725
P-3a	4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH (Warfighting Capability)			- / 40.115	- / 52.442	- / 47.933	- / 57.967	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 115.096	- / 137.643	- / 134.047	- / 136.740	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:

The OP,N BLI 2136 budget primarily supports the upgrade of legacy, in-service AN/SQQ-89(V) systems to the superior AN/SQQ-89A(V)15 USW Combat System baseline. Additionally, the OP,N BLI 2136 budget will be responsible for periodic technology refresh initiatives in conjunction with previously fielded AN/SQQ-89A(V)15 systems across all CG47 and DDG51 Class platforms (software/hardware technology upgrades/insertions) to pace the threat and remain effective well into the 21st century.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys						Aggregated Items Title: AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15																				
1.1) SYSTEM UPDATES (NON RECURRING ENGINEERING)			-	-	12.147	-	-	1.731	-	-	1.785	-	-	1.809	-	-	-	-	-	1.809
1.2) MFTA (MULTI-FUNCTION TOWED ARRAY) MAJOR EQUIPMENT ^(†)	A		2,762K	8	22.099	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) CSSQT (COMBAT SYSTEMS SHIP QUALIFICATION TRIALS) ⁽¹⁾			-	-	19.599	-	-	3.200	-	-	4.344	-	-	4.206	-	-	-	-	-	4.206
1.4) FOT&E (FOLLOW-ON OPERATIONAL TEST & EVALUATION) ⁽²⁾			-	-	3.109	-	-	1.834	-	-	-	-	-	1.542	-	-	-	-	-	1.542
1.5) EC'S (ENGINEERING CHANGES)			-	-	1,079.376	-	-	1.631	-	-	1.681	-	-	1.705	-	-	-	-	-	1.705
1.6) ILS (INTEGRATED LOGISTICS SUPPORT)			-	-	30.477	-	-	3.081	-	-	3.174	-	-	3.219	-	-	-	-	-	3.219
1.7) FLTASWTRACEN (FLEET ASW TRAINING CENTER) ⁽³⁾			-	-	2.825	-	-	-	-	-	0.647	-	-	-	-	-	-	-	-	-
1.8) AIE (AEGIS INTEGRATION EVENTS) ⁽⁴⁾			-	-	16.534	-	-	1.860	-	-	1.921	-	-	2.640	-	-	-	-	-	2.640
1.9) SSES (SURFACE SHIP ENGINEERING SITE) ⁽⁵⁾			-	-	8.898	-	-	-	-	-	3.267	-	-	-	-	-	-	-	-	-
1.10) ACSC (AEGIS COMBAT SYSTEMS CENTER) ⁽⁶⁾			-	-	2.301	-	-	-	-	-	-	-	-	1.957	-	-	-	-	-	1.957
Subtotal: 1) DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15			-	-	1,197.365	-	-	13.337	-	-	16.819	-	-	17.078	-	-	-	-	-	17.078
2) DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys						Aggregated Items Title: AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
2.1) PRODUCTION ENGINEERING			-	-	37.609	-	-	3.175	-	-	3.272	-	-	3.309	-	-	-	-	-	3.309
Subtotal: 2) DB830 - PRODUCTION ENGINEERING - SQQ-89A(V)15			-	-	37.609	-	-	3.175	-	-	3.272	-	-	3.309	-	-	-	-	-	3.309
3) DB900 - CONSULTING SERVICES - SQQ-89A(V)15																				
3.1) CONSULTING SERVICES			-	-	14.928	-	-	1.395	-	-	1.440	-	-	1.466	-	-	-	-	-	1.466
Subtotal: 3) DB900 - CONSULTING SERVICES - SQQ-89A(V)15			-	-	14.928	-	-	1.395	-	-	1.440	-	-	1.466	-	-	-	-	-	1.466
4) DB984 - SYSTEM TECHNICAL SUPPORT - SIPS																				
4.1) SIPS (SCALED IMPROVED PERFORMANCE SONAR)			-	-	11.242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) DB984 - SYSTEM TECHNICAL SUPPORT - SIPS			-	-	11.242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	1,261.144	-	-	17.907	-	-	21.531	-	-	21.853	-	-	-	-	-	21.853

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

(†) indicates the presence of a P-5a

Footnotes:

- (1) 1.3 CSSQT (Combat Systems Qualification Trials): CSSQT costs are dependent on the number, scope and complexity of CSSQTs planned per Fiscal Year (FY). CSSQTs planned for AN/SQQ-89A(V)15 FLT I/II/III installs are higher in cost, scope and complexity than those for AN/SQQ-89A(V)15 Technology Refreshes. In FY 2016 (\$4.344M), five (5) CSSQTs are planned (three for AN/SQQ-89A(V)15 FLT IIA installs and two for AN/SQQ-89A(V)15 Technology Refresh installs). In FY 2017 (\$4.206M), five (5) CSSQTs are planned (two for AN/SQQ-89A(V)15 FLT IIA installs and three for AN/SQQ-89A(V)15 Technology Refresh installs).
- (2) 1.4 FOT&E (Follow-On Operational Test & Evaluation): FOT&E costs are primarily biannual driven, and dependent on the scope and complexity of the next new AN/SQQ-89 Advanced Capability Build (ACB) production baseline release being tested. There is no requirement to conduct an FOT&E event in FY 2016. In FY 2017 (\$1.542M), funding is required to conduct an FOT&E event on the next new AN/SQQ-89 ACB production baseline release.
- (3) 1.7 FLTASWTRACEN (Fleet ASW Training Center, San Diego, CA): FLTASWTRACEN costs are primarily biannual driven, and dependent on the scope and complexity of training equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2016 (\$0.647M), funding is required to upgrade the equipment at FLTASWTRACEN. There is no requirement to upgrade equipment at the FLTASWTRACEN in FY 2017.
- (4) 1.8 AIE (AEGIS Integration Events): Cost increase for AIE test execution and analysis, combat system safety and certification efforts, and tools and simulation support from FY 2016 (\$1.921M) to FY 2017 (\$2.640M) was driven by the addition of three (3) new capabilities/interfaces to be tested/certified in FY 2017, the Computer Aided Dead Reckoning Tracer (CADRT), AN/SPS-67 radar, and Surface ASW Synthetic Trainer (SAST).
- (5) 1.9 SSES (Surface Ship Engineering Site, Prime Vendor's Facility): SSES costs are primarily biannual driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. In FY 2016 (\$3.267M), funding is required to upgrade the equipment at the SSES land based site. There is no requirement to upgrade equipment at the SSES land based site in FY 2017.
- (6) 1.10 ACSC (AEGIS Combat Systems Center, Wallops Island, VA): ACSC costs are primarily biannual driven, and dependent on the scope and complexity of shore site equipment to be upgraded to ensure continued support of the latest AN/SQQ-89A(V)15 backfit Advanced Capability Build (ACB) and AEGIS Weapon System (AWS) baselines. There is no requirement to upgrade equipment at the SSES land based site in FY 2016. In FY 2017 (\$1.957M), funding is required to upgrade the equipment at the ACSC land based site.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2			P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys					Aggregated Items: AN/SQQ-89(V) SURFACE ASW COMBAT SYSTEM				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) DB400 - DDG51 CLASS SYSTEM COMPONENTS - SQQ-89A(V)15												
1.2) MFTA (MULTI-FUNCTION TOWED ARRAY) MAJOR EQUIPMENT		2013	Lockheed Martin / Syracuse, NY	C / FP	NAVSEA	Sep 2013	Mar 2015	2	3,295K	Y		May 2012
1.2) MFTA (MULTI-FUNCTION TOWED ARRAY) MAJOR EQUIPMENT		2014	Lockheed Martin / Syracuse, NY	C / FP	NAVSEA	May 2014	Nov 2015	2	3,354K	Y		May 2012

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys				Modification Number / Title: 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	331.460	37.163	36.743	21.966	-	21.966	21.406	17.148	5.867	4.784	18.554	495.091
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	331.460	37.163	36.743	21.966	-	21.966	21.406	17.148	5.867	4.784	18.554	495.091
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	331.460	37.163	36.743	21.966	-	21.966	21.406	17.148	5.867	4.784	18.554	495.091
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE] DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on all DDG79-112 Flight IIA ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship. DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.

The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities, hull access cuts, and installation of the Handling & Stowage Gear (H&SG) on non-tailed (i.e. no towed array) DDG51 Class Flight IIA hulls, which is required for the operation of the new tactical towed sonar, the TB-37 Multi-Function Towed Array (MFTA).

AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every two years in a ship's schedule.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE

Models of Systems Affected: Upgrade of legacy AN/SQQ-89(V) systems on all DDG79-112 ships to AN/SQQ-89A(V)15 configuration	Modification Type: Warfighting Capability	Related RDT&E PEs: 0205620N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE												
B Kits												
Recurring												
1.1) AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE - NonOrganic ⁽⁷⁾	26 / 232.259	2 / 21.475	2 / 21.861	1 / 11.127	- / -	1 / 11.127	1 / 11.328	1 / 11.532	- / -	- / -	1 / 12.238	34 / 321.820
<i>Subtotal: Recurring</i>	- / 232.259	- / 21.475	- / 21.861	- / 11.127	- / -	- / 11.127	- / 11.328	- / 11.532	- / -	- / -	- / 12.238	- / 321.820
<i>Subtotal: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE</i>	26 / 232.259	2 / 21.475	2 / 21.861	1 / 11.127	- / -	1 / 11.127	1 / 11.328	1 / 11.532	- / -	- / -	1 / 12.238	34 / 321.820
<i>Subtotal: Procurement, All Modification Items</i>	- / 232.259	- / 21.475	- / 21.861	- / 11.127	- / -	- / 11.127	- / 11.328	- / 11.532	- / -	- / -	- / 12.238	- / 321.820

Installation

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE	- / 99.201	- / 15.688	- / 14.882	- / 10.839	- / -	- / 10.839	- / 10.078	- / 5.616	- / 5.867	- / 4.784	- / 6.316	- / 173.271
<i>Subtotal: Installation</i>	- / 99.201	- / 15.688	- / 14.882	- / 10.839	- / -	- / 10.839	- / 10.078	- / 5.616	- / 5.867	- / 4.784	- / 6.316	- / 173.271

Total												
Total Cost (Procurement + Support + Installation)	331.460	37.163	36.743	21.966	-	21.966	21.406	17.148	5.867	4.784	18.554	495.091

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Manassas, VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	May 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019		
Delivery Dates	Nov 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2020		

Installation Information

Method of Implementation: AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	20 / 99.201	3 / 15.688	3 / 12.707	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	26 / 127.596
FY 2015	- / -	- / -	- / 2.175	2 / 8.624	- / -	2 / 8.624	- / -	- / -	- / -	- / -	- / -	2 / 10.799
FY 2016	- / -	- / -	- / -	- / 2.215	- / -	- / 2.215	2 / 8.951	- / -	- / -	- / -	- / -	2 / 11.166
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.127	1 / 4.469	- / -	- / -	- / -	1 / 5.596
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.147	1 / 4.699	- / -	- / -	1 / 5.846
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.168	1 / 4.784	- / -	1 / 5.952
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.316	1 / 6.316
Total	20 / 99.201	3 / 15.688	3 / 14.882	2 / 10.839	- / -	2 / 10.839	2 / 10.078	1 / 5.616	1 / 5.867	1 / 4.784	1 / 6.316	34 / 173.271

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	20	-	1	2	-	-	1	1	1	-	1	1	-	-	1	1	-	-	-	1	-	-	1	-	-	-	1	-	-	1	34
Out	19	1	-	1	2	-	-	1	1	1	-	1	1	-	-	1	1	-	-	-	1	-	-	1	-	-	-	1	-	1	34

Footnotes:

(7) The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities, hull access cuts, and installation of the Handling & Stowage Gear (H&SG) on non-tailed (i.e. no towed array) DDG51 Class Flight IIA hulls, which is required for the operation of the new tactical towed sonar, the TB-37 Multi-Function Towed Array (MFTA). AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.)

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 1 / AN/SQQ-89A(V)15 - DDG79-112 FLT IIA UPGRADE

installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every two years in a ship's schedule.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys				Modification Number / Title: 2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.795	10.382	7.482	13.255	-	13.255	15.284	15.558	15.838	16.123	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.795	10.382	7.482	13.255	-	13.255	15.284	15.558	15.838	16.123	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.795	10.382	7.482	13.255	-	13.255	15.284	15.558	15.838	16.123	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE] DB400 PROCUREMENT: Procurement of a subset of AN/SQQ-89A(V)15 equipment, specifically the TB-37 Multi-Function Towed Array (MFTA) and Handling & Stowage Group (H&SG), for subsequent installation on all DDG113 and follow ships during their Post Delivery Availability (PDA) period (for the DDG113 lead ship), or Post Shakedown Availability (PSA) period (for DDG114 and follow ships), to upgrade the ASW sonar suite from an AN/SQQ-89(V)15 configuration to the AN/SQQ-89A(V)15 configuration. DB6IN INSTALLATION: Funding is for the physical installation of the H&SG and TB-37 MFTA on DDG113 and follow ships during their PDA or PSA period which includes the installation of an egress, under-deck stiffeners, cables, bulkheads, opening and closing of the transom, the winch, levelwind, fairlead and control station, decking, painting, and final system testing, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE

Models of Systems Affected: Upgrade of in-line AN/SQQ-89(V)15 on all DDG113 and follow ships to AN/SQQ-89A(V)15 configuration	Modification Type: Warfighting Capability	Related RDT&E PEs: 0205620N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE												
B Kits												
Recurring												
1.1) AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE - NonOrganic ⁽⁸⁾	1 / 5.795	2 / 10.382	1 / 5.285	2 / 11.014	- / -	2 / 11.014	2 / 11.157	2 / 11.357	2 / 11.562	2 / 11.770	Continuing	Continuing
<i>Subtotal: Recurring</i>	- / 5.795	- / 10.382	- / 5.285	- / 11.014	- / -	- / 11.014	- / 11.157	- / 11.357	- / 11.562	- / 11.770	Continuing	Continuing
<i>Subtotal: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE</i>	1 / 5.795	2 / 10.382	1 / 5.285	2 / 11.014	- / -	2 / 11.014	2 / 11.157	2 / 11.357	2 / 11.562	2 / 11.770	Continuing	Continuing
<i>Subtotal: Procurement, All Modification Items</i>	- / 5.795	- / 10.382	- / 5.285	- / 11.014	- / -	- / 11.014	- / 11.157	- / 11.357	- / 11.562	- / 11.770	Continuing	Continuing
Installation												
<i>Modification Item 1 of 1:</i> AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE	- / 0.000	- / -	- / 2.197	- / 2.241	- / -	- / 2.241	- / 4.127	- / 4.201	- / 4.276	- / 4.353	Continuing	Continuing
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 2.197	- / 2.241	- / -	- / 2.241	- / 4.127	- / 4.201	- / 4.276	- / 4.353	Continuing	Continuing
Total												
Total Cost (Procurement + Support + Installation)	5.795	10.382	7.482	13.255	-	13.255	15.284	15.558	15.838	16.123	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 2 / AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	May 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Nov 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022

Installation Information

Method of Implementation: AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG113 AND FOLLOW MFTA/HANDLER UPGRADE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	1 / 1.986	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 1.986
FY 2015	- / -	- / -	- / 0.211	1 / 2.026	- / -	1 / 2.026	1 / 1.844	- / -	- / -	- / -	- / -	2 / 4.081
FY 2016	- / -	- / -	- / -	- / 0.215	- / -	- / 0.215	1 / 1.845	- / -	- / -	- / -	- / -	1 / 2.060
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.438	2 / 3.756	- / -	- / -	- / -	2 / 4.194
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.445	2 / 3.823	- / -	- / -	2 / 4.268
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.453	2 / 3.892	- / -	2 / 4.345
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.461	2 / 3.962	2 / 4.423
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.502	2 / 4.502
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	1 / 2.197	1 / 2.241	- / -	1 / 2.241	2 / 4.127	2 / 4.201	2 / 4.276	2 / 4.353	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	-	-	-	1	1	-	-	1	1	-	-	1	1	-	-	4	14
Out	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	-	-	-	1	1	-	-	1	1	-	-	1	1	-	-	4	14

Footnotes:
⁽⁸⁾ FY 2016 funding was used to finance the MFTA/Handler upgrade installation on the DDG113 lead ship, which was accelerated from the later PSA availability to the earlier PDA availability (4Q FY 2016) at the request of the Ship Platform Manager (SPM), as necessary to minimize the number of alterations (including the installation of the MFTA/Handler here) to be installed during the later PSA availability. Note: DDG113 and Follow MFTA/Handler installation costs for first-of-its-kind installs beginning in FY 2016 were increased to reflect the latest cost estimates received from the Alteration Installation Team (AIT) and responsible shipyard (primarily driven by the introduction of new bow strengthening and TR-343 Transducer Stave Cable alteration requirements associated with the AN/SQQ-89, as well as the anticipated continuation of port loading issues at the shipyards which will require the employment of 3rd party contractors).

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys				Modification Number / Title: 3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	18.905	11.720	-	11.720	7.865	23.154	32.441	20.885	15.755	130.725
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	18.905	11.720	-	11.720	7.865	23.154	32.441	20.885	15.755	130.725
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	18.905	11.720	-	11.720	7.865	23.154	32.441	20.885	15.755	130.725
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE] DB400 PROCUREMENT: Procurement of AN/SQQ-89A(V)15 equipment for subsequent backfit installation on select DDG51-78 FLT I/II ships. An average, aggregate AN/SQQ-89A(V)15 unit cost is indicated, however, it should be noted that this cost is comprised of multiple contract/funding vehicles. Additionally, the subdivision of these unit costs to a specific ship can vary as they are dependent on the pre-existing configuration of each ship. NOTE: Procurement of an AN/SQQ-89A(V)15 for DDG51 Class FLT I/II ships does not require the OK-410 Handling & Stowage Group (H&SG) subsystem as needed with DDG51 Class FLT IIA ships. DB6IN INSTALLATION: Funding is for the full-up physical installation of the major AN/SQQ-89A(V)15 upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.

The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities and hull access cuts.

AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every two years in a ship's schedule.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE

Models of Systems Affected: Upgrade of legacy AN/SQQ-89(V) systems on select DDG51-78 ships to AN/SQQ-89A(V)15 configuration	Modification Type: Warfighting Capability	Related RDT&E PEs: 0205620N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE												
B Kits												
Recurring												
1.1) AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE - NonOrganic ⁽⁹⁾	- / -	- / -	2 / 18.905	1 / 9.515	- / -	1 / 9.515	- / -	2 / 19.722	3 / 30.115	1 / 10.219	- / -	9 / 88.476
Subtotal: Recurring	- / 0.000	- / -	- / 18.905	- / 9.515	- / -	- / 9.515	- / -	- / 19.722	- / 30.115	- / 10.219	- / -	- / 88.476
Subtotal: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE	- / -	- / -	2 / 18.905	1 / 9.515	- / -	1 / 9.515	- / -	2 / 19.722	3 / 30.115	1 / 10.219	- / -	9 / 88.476
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / 18.905	- / 9.515	- / -	- / 9.515	- / -	- / 19.722	- / 30.115	- / 10.219	- / -	- / 88.476

Installation

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE	- / 0.000	- / -	- / -	- / 2.205	- / -	- / 2.205	- / 7.865	- / 3.432	- / 2.326	- / 10.666	- / 15.755	- / 42.249
Subtotal: Installation	- / 0.000	- / -	- / -	- / 2.205	- / -	- / 2.205	- / 7.865	- / 3.432	- / 2.326	- / 10.666	- / 15.755	- / 42.249

Total

Total Cost (Procurement + Support + Installation)	0.000	-	18.905	11.720	-	11.720	7.865	23.154	32.441	20.885	15.755	130.725
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE

Modification Item 1 of 1: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE

Manufacturer Information							
Manufacturer Name: Lockheed Martin				Manufacturer Location: Manassas, VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016	Mar 2017		Mar 2019	Mar 2020	Mar 2021
Delivery Dates		Sep 2017	Sep 2018		Sep 2020	Sep 2021	Sep 2022

Installation Information
Method of Implementation: AIT and SHIPYARD:: Installation Name: AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / 12.205	- / -	- / 12.205	2 / 6.743	- / -	- / -	- / -	- / -	2 / 8.948
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.122	1 / 3.432	- / -	- / -	- / -	1 / 4.554
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.326	2 / 7.114	- / -	2 / 9.440
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.552	3 / 10.863	3 / 14.415
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.892	1 / 4.892
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / 12.205	- / -	- / 12.205	2 / 7.865	1 / 3.432	- / 12.326	2 / 10.666	4 / 15.755	9 / 42.249

Installation Schedule																															
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	1	1	-	4	9	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	1	1	4	9

Footnotes:
⁽⁹⁾ The AN/SQQ-89A(V)15 requires a CNO (Chief of Naval Operations) availability period. The installation is accomplished by Alteration Installation Team (AIT) and shipyard personnel together. The AIT personnel are responsible for the removal of all AN/SQQ-89(V) legacy equipment, addition and modification of foundations, and installation, connectorization, and test of all new AN/SQQ-89A(V)15 equipment. The shipyard personnel are responsible for all rigging activities and hull access cuts. AN/SQQ-89A(V)15 production shipset delivery time is 18 months after contract award. Each subsequent system procured in an FY is delivered one month later than the previous system. Delivery of equipment to the shipyard is preferably no later than 30-90 days prior to a CONUS (Continental U.S.) installation start date and no later than 120 days prior to a non-CONUS installation start date. Installations are assigned to specific ships as per Fleet priorities/requirements, and based on ship availabilities, as identified in the Fleet Modernization

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 3 / AN/SQQ-89A(V)15 - DDG51-78 (SELECT) FLT I/II UPGRADE

Program Management Information System (FMPMIS). Significant maintenance availability periods to support a major upgrade such as the AN/SQQ-89A(V)15 normally occur only once every two years in a ship's schedule.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys				Modification Number / Title: 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	8.612	13.350	18.580	21.235	-	21.235	40.115	52.442	47.933	57.967	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	8.612	13.350	18.580	21.235	-	21.235	40.115	52.442	47.933	57.967	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	8.612	13.350	18.580	21.235	-	21.235	40.115	52.442	47.933	57.967	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH] DB400 PROCUREMENT: Procurement of software/hardware technology upgrades for all CG47/DDG51 Class surface combatant platforms with a previously fielded AN/SQQ-89A(V)15, as necessary to manage obsolescence, take advantage of commercial development efforts, and continue to pace the threat and ensure the system remains effective well into the 21st century. Updating the hardware and software will ensure the Fleet maintains critical Undersea Warfare capability while reducing obsolescence. Establishing a technology refresh program provides a method for rapid response to meet Fleet Anti-Submarine Warfare (ASW) requirements. DB6IN INSTALLATION: Funding is for the physical installation of the AN/SQQ-89A(V)15 Technology Refresh upgrade, the ordering of incidental installation material in the year prior to the actual installation, and Design Services Allocation (DSA) required for mandatory planning yard design tasks and ship checks that must be completed within the one year period leading up to the actual installation in the shipyard.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH

Models of Systems Affected: Technology refresh of previously fielded AN/SQQ-89A(V)15 USW Combat Systems	Modification Type: Warfighting Capability	Related RDT&E PEs: 0205620N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH												
B Kits												
Recurring												
1.1) AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH - NonOrganic ⁽¹⁰⁾	2 / 8.612	3 / 12.896	3 / 13.388	3 / 13.628	- / -	3 / 13.628	7 / 32.372	9 / 43.670	6 / 28.755	7 / 34.151	Continuing	Continuing
<i>Subtotal: Recurring</i>	- / 8.612	- / 12.896	- / 13.388	- / 13.628	- / -	- / 13.628	- / 32.372	- / 43.670	- / 28.755	- / 34.151	Continuing	Continuing
<i>Subtotal: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH</i>	2 / 8.612	3 / 12.896	3 / 13.388	3 / 13.628	- / -	3 / 13.628	7 / 32.372	9 / 43.670	6 / 28.755	7 / 34.151	Continuing	Continuing
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.612	- / 12.896	- / 13.388	- / 13.628	- / -	- / 13.628	- / 32.372	- / 43.670	- / 28.755	- / 34.151	Continuing	Continuing

Installation

Modification Item 1 of 1: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH	- / 0.000	- / 0.454	- / 5.192	- / 7.607	- / -	- / 7.607	- / 7.743	- / 8.772	- / 19.178	- / 23.816	Continuing	Continuing
<i>Subtotal: Installation</i>	- / 0.000	- / 0.454	- / 5.192	- / 7.607	- / -	- / 7.607	- / 7.743	- / 8.772	- / 19.178	- / 23.816	Continuing	Continuing

Total

Total Cost (Procurement + Support + Installation)	8.612	13.350	18.580	21.235	-	21.235	40.115	52.442	47.933	57.967	Continuing	Continuing
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH

Modification Item 1 of 1: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Manassas, VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 17

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Sep 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Feb 2017	Aug 2017	Aug 2018	Aug 2019	Aug 2020	Aug 2021	Aug 2022

Installation Information

Method of Implementation: AIT:: Installation Name: AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / 0.454	2 / 4.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 5.014
FY 2015	- / -	- / -	- / 0.632	3 / 6.963	- / -	3 / 6.963	- / -	- / -	- / -	- / -	- / -	3 / 7.595
FY 2016	- / -	- / -	- / -	- / 0.644	- / -	- / 0.644	3 / 7.088	- / -	- / -	- / -	- / -	3 / 7.732
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.655	3 / 7.216	- / -	- / -	- / -	3 / 7.871
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.556	7 / 17.141	- / -	- / -	7 / 18.697
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.037	9 / 22.434	- / -	9 / 24.471
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.382	6 / 15.225	6 / 16.607
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 17.558	7 / 17.558
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / 0.454	2 / 5.192	3 / 7.607	- / -	3 / 7.607	3 / 7.743	3 / 8.772	7 / 19.178	9 / 23.816	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	1	1	-	-	-	-	2	1	-	2	1	-	-	1	2	-	1	2	3	1	1	3	3	2	13	40
Out	-	-	-	-	-	-	1	1	-	-	-	-	2	1	-	2	1	-	-	1	2	-	1	2	3	1	1	3	3	2	13	40

Footnotes:

⁽¹⁰⁾ AN/SQQ-89A(V)15 Technology Insertion/Refresh production lead time is 17 months. The lead time aligns closely to that exhibited for full-up AN/SQQ-89A(V)15 systems for FLT I/II/IIA DDGs (18 months), based on Technology Insertion/Refresh buys utilizing almost all of the same equipment (minus the Multi-Function Towed Array and OK-410 Handling & Stowage Group). Installation funding for AN/SQQ-89A(V)15 Technology Insertion/Refresh equipment reflects physical installation two years after procurement, and ordering of incidental installation material as well as the Design Services Allocation (DSA) efforts required for mandatory planning yard design tasks and ship checks to be funded in the year prior to the actual installation. Note: AN/SQQ-89A(V)15 Technology Insertion/Refresh installation costs for first-of-its-kind installs beginning in FY 2016 were increased to reflect the latest cost estimates received from the Alteration Installation Team (AIT)(primarily driven by the introduction of new bow strengthening and

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2136 / AN/SQQ-89 Surf ASW Cmbt Sys	Modification Number / Title: 4 / AN/SQQ-89A(V)15 - TECHNOLOGY INSERTION/REFRESH
TR-343 Transducer Stave Cable alteration requirements associated with the AN/SQQ-89, as well as the anticipated continuation of port loading issues at the shipyards which will require the employment of 3rd party contractors).		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2147 / SSN Acoustics
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,163.198	160.932	232.835	-	-	-	-	-	-	-	-	1,556.965
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,163.198	160.932	232.835	-	-	-	-	-	-	-	-	1,556.965
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,163.198	160.932	232.835	-	-	-	-	-	-	-	-	1,556.965

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	9.113	15.391	-	-	-	-	-	-	-	-	24.504
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

*Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program procures submarine systems and equipment for installation on all classes of submarines to maintain clear acoustical, tactical, and operational superiority over submarine and surface combatants in all scenarios through detection, classification, localization, and contact following. All future acoustic upgrades of Acoustic Rapid COTS Insertion (A-RCI) equipment are incorporated into this budget item. Future procurements, detailed below, are focused on supporting Littoral Warfare, Regional Sea Denial, Strike Group Support, Diesel Submarine Detection, Surveillance, and Peacetime Engagement. A-RCI is a multi-phased, evolutionary development effort geared toward addressing acoustic superiority issues through the rapid introduction of interim products applicable to SSN 688, 688I Flight, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines. A-RCI Phase II provided towed array processing improvements; A-RCI Phase III provides spherical array processing improvements, and A-RCI Phase IV provides AN/BSY-1 High Frequency Upgrades for SSN 688I, SSGN, and Seawolf Classes. As part of Navy's plan to maintain acoustic superiority for in-service submarines, reduce obsolescence, and provide increased capability, the A-RCI program will modernize and sustain approximately 8-12 SSNs and 2-3 SSBNs per year through executing bi-annual software Advanced Processing Builds (APBs) and bi-annual hardware Technical Insertions (TIs).

Towed system procurements of TB-29X and TB-34X provide reliability improvements to maintain acoustic superiority, increase the service life, reduce failures, and maintain the inventory of arrays available for fleet use. Towed Array Refurbishment & Reliability Upgrades sustain current in-service TB-16/34 fat line and TB-23/29A thin line towed arrays. Towed System procurements provide upgrade/support for OK-276, OK-634, OK-542 and OA-9070 Series Towed Array Handlers installed on SSN688, SSN 688I, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines.

Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability in high contact density environments experienced in the littorals. Procurement of VA Unique Sensors sustains unique hull sensor systems for the VA platforms under the Critical Transducer Program as VA Class submarines transition into fleet service.

Installation funds are for actual hardware installations during shipyard and pier-side availabilities. Procurements support a 12-15 month lead time for installations.

[P40A / SA102 TOWED SYSTEMS]: Procures TB-34X Fatline and TB-29X Thinline Arrays to provide increase acoustic capability and reliability to the fleet. The program supports N8's response to the Fleet Forces Command's Urgent Operational Needs Statement message (dated 15 June 2009) which requests that a reliable Thinline Towed Array is critically needed to support submarine operations in the

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2147 / SSN Acoustics
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	
<p>Western Pacific Area of Operations, refurbishment/upgrades reliability improvements to TB-16 series, TB-23, TB-29A to maintain in-service Towed Array inventory and increased array availability. Reliability improvements include new telemetry, hose material, improved internal connectors, hydrophones, tow cables, and Vibration Isolation Modules (VIMS), and Heading Sensors.</p> <p>[P40A / SA105 SONAR SUPPORT EQUIPMENT]: Funds provided to procure BQN-17(A) and associated equipment.</p> <p>[P40A / SA106 HULL SENSORS]: Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability, and VA Unique Sensors required to sustain unique hull sensor systems for the VA platforms under the Critical Transducer Program.</p> <p>[P40A / SA201 BLOCK CHANGES]: Minor Engineering Change Proposals (ECP's) and hardware changes affecting all classes of submarines are procured through this line. Funding will be used to support non-recurring first article test efforts associated with the changing COTS environment as well as Reliability, Maintainability, and Availability modifications requested by the Fleet. This line also supports the procurement of hardware necessary to implement the ECP's into the System or end item being procured.</p> <p>[P40A / SA202 PRODUCTION/ENGINEERING SUPPORT]: Funding supports the procurement of Acoustics Upgrades equipment and Towed System hardware.</p> <p>[P40A / SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT]: Funding procures various towed array test equipment simulators and handling system/stowage tube inspection test equipment.</p> <p>[P40A / SA302 OP TRAINER UPGRADES]: Funding procures hardware upgrades and production engineering for Acoustic Upgrades operational trainer sites.</p> <p>[P40A / SA303 COTS SUPPORTABILITY UPGRADES]: Provides for Technology Refresh/Insertion for A-RCI kits. Tech Refresh provides for Software and Hardware updates to accommodate shifts in technology to the execution procurement years' "current state-of-the-practice" hardware. A-RCI has already undergone several technology insertion phases to accommodate integrating Advanced Processing Builds (APBs). Updates are necessary for signal and display processing hardware as APBs are introduced or as commercial support for the hardware is phased out. Tech Insertion procures the hardware necessary to upgrade and back fit the A-RCI kits. When A-RCI systems are being upgraded to subsequent phases of A-RCI, signal processing and display hardware will be procured from this line to accommodate common technology consistent with the APB being implemented in the year of introduction. In future years, requirements include additional equipment in technology insertion to prevent COTS hardware from becoming unsupported/obsolete. Funding also supports the procurement and engineering for COTS Underwater Comms.</p> <p>[P40A / SA401 INITIAL TRAINING]: Provides for initial training curriculum development, training management materials, exercise control group development, pilot services, and services to the Fleet.</p> <p>[P40A / SA900 CONSULTING SERVICES]: Includes specification validation, contract deliverable monitoring, prime contractor monitoring for cost, schedule, and performance slips, ILS planning, and coordination of GFI. Additional support will include production planning, business case analysis, technical refresh and insertion planning and market analysis to review implementation strategies for procurement of current year "state of the practice" hardware in Acoustics programs. Consulting services will also provide production monitoring, installation planning and coordination support.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars **P-1 Line Item Number / Title:**
2147 / SSN Acoustics

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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SSN Acoustics	P-5a		- / 751.140	- / 86.212	- / 114.270	- / -	- / -	- / -
P-3a	1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT)			- / 12.580	- / -	- / 5.944	- / -	- / -	- / -
P-3a	2 / SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT (TBD)			- / 120.782	- / 1.243	- / -	- / -	- / -	- / -
P-3a	3 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)			- / 96.549	- / 12.472	- / 12.720	- / -	- / -	- / -
P-3a	4 / SA303 688/688I TECHNOLOGY INSERTION KITS (SHIPALT)			- / 44.526	- / 57.840	- / 58.992	- / -	- / -	- / -
P-3a	6 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS (SHIPALT)			- / 11.060	- / -	- / 8.583	- / -	- / -	- / -
P-3a	7 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS (SHIPALT)			- / 126.561	- / 3.165	- / 13.407	- / -	- / -	- / -
P-3a	8 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS (SHIPALT)			- / 0.000	- / -	- / 8.583	- / -	- / -	- / -
P-3a	9 / SA303 SSBN CONVERSION (SHIPALT)			- / 0.000	- / -	- / 10.336	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 1,163.198	- / 160.932	- / 232.835	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SSN Acoustics	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 18.524
P-3a	2 / SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT (TBD)			- / -	- / -	- / -	- / -	- / -	- / 122.025
P-3a	3 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 121.741
P-3a	4 / SA303 688/688I TECHNOLOGY INSERTION KITS (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 161.358
P-3a	6 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 19.643
P-3a	7 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 143.133
P-3a	8 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 8.583
P-3a	9 / SA303 SSBN CONVERSION (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 10.336
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 1,556.965

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2147 / SSN Acoustics						Aggregated Items Title: SSN Acoustics								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) SA102 TOWED SYSTEMS																				
1.1) TB-34 FATLINE INTERFACE HWD ^(†)	B		24,822.58	62	1.539	17,000.00	9	0.153	-	-	-	-	-	-	-	-	-	-	-	-
1.2) TB-34X FATLINE TOWED ARRAYS ^(†)	B		5,925K	1	5.925	-	-	-	1,224K	3	3.672	-	-	-	-	-	-	-	-	-
1.3) TB-29X THIN LINE TOWED ARRAYS ^{(†)(†)}	B		-	-	-	-	-	-	4,118K	4	16.472	-	-	-	-	-	-	-	-	-
1.4) TOWED ARRAY REFURBISHMENT & UPGRADES	A		-	-	253.321	-	-	29.218	-	-	29.675	-	-	-	-	-	-	-	-	-
1.5) TOWED ARRAY HANDLER SYSTEM UPGRADE	A		-	-	72.900	-	-	7.121	-	-	7.263	-	-	-	-	-	-	-	-	-
Subtotal: 1) SA102 TOWED SYSTEMS			-	-	333.685	-	-	36.492	-	-	57.082	-	-	-	-	-	-	-	-	-
2) SA105 SONAR SUPPORT EQUIPMENT																				
2.1) BQN-17	A		-	-	7.276	-	-	0.853	-	-	0.870	-	-	-	-	-	-	-	-	-
Subtotal: 2) SA105 SONAR SUPPORT EQUIPMENT			-	-	7.276	-	-	0.853	-	-	0.870	-	-	-	-	-	-	-	-	-
3) SA106 HULL SENSORS																				
3.1) VA UNIQUE SENSOR	A		-	-	21.600	-	-	5.210	-	-	5.304	-	-	-	-	-	-	-	-	-
Subtotal: 3) SA106 HULL SENSORS			-	-	21.600	-	-	5.210	-	-	5.304	-	-	-	-	-	-	-	-	-
4) SA201 BLOCK CHANGES																				
4.1) TOWED SYSTEMS ECP'S	A		-	-	13.395	-	-	1.636	-	-	1.668	-	-	-	-	-	-	-	-	-
4.2) ACOUSTICS	A		-	-	20.356	-	-	2.905	-	-	2.963	-	-	-	-	-	-	-	-	-
Subtotal: 4) SA201 BLOCK CHANGES			-	-	33.751	-	-	4.541	-	-	4.631	-	-	-	-	-	-	-	-	-
5) SA202 PRODUCTION/ENGINEERING SUPPORT																				
5.1) ACOUSTICS	A		-	-	25.026	-	-	3.046	-	-	3.106	-	-	-	-	-	-	-	-	-
5.2) TOWED ARRAYS/HANDLING EQUIPMENT	A		-	-	32.562	-	-	2.991	-	-	3.050	-	-	-	-	-	-	-	-	-
Subtotal: 5) SA202 PRODUCTION/ENGINEERING SUPPORT			-	-	57.588	-	-	6.037	-	-	6.156	-	-	-	-	-	-	-	-	-
6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT																				
6.1) TOWED ARRAY UNIQUE TEST EQUIPMENT	A		-	-	16.271	-	-	1.210	-	-	1.234	-	-	-	-	-	-	-	-	-
Subtotal: 6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT			-	-	16.271	-	-	1.210	-	-	1.234	-	-	-	-	-	-	-	-	-

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2147 / SSN Acoustics **Aggregated Items Title:** SSN Acoustics

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
7) SA302 OP TRAINER UPGRADES																				
7.1) OP TRAINER GFE	A		-	-	9.100	-	-	1.069	-	-	1.090	-	-	-	-	-	-	-	-	-
Subtotal: 7) SA302 OP TRAINER UPGRADES			-	-	9.100	-	-	1.069	-	-	1.090	-	-	-	-	-	-	-	-	-
8) SA303 COTS SUPPORTABILITY UPGRADES																				
8.1) INSTALL SUPPORT	A		-	-	4.276	-	-	1.475	-	-	1.504	-	-	-	-	-	-	-	-	-
8.2) AEMP	A		-	-	47.500	-	-	5.344	-	-	5.450	-	-	-	-	-	-	-	-	-
8.3) COTS UWC ENGINEERING SUPPORT ⁽²⁾	A		-	-	23.023	-	-	0.828	-	-	1.729	-	-	-	-	-	-	-	-	-
8.4) COTS TECH INSERTION	A		-	-	155.010	-	-	18.763	-	-	19.138	-	-	-	-	-	-	-	-	-
8.5) SHIPYARD INSTALLATION INDUSTRIAL SUPPORT	A		-	-	-	-	-	-	-	-	5.606	-	-	-	-	-	-	-	-	-
Subtotal: 8) SA303 COTS SUPPORTABILITY UPGRADES			-	-	229.809	-	-	26.410	-	-	33.427	-	-	-	-	-	-	-	-	-
9) SA401 INITIAL TRAINING																				
9.1) ACOUSTICS	A		-	-	12.914	-	-	1.708	-	-	1.742	-	-	-	-	-	-	-	-	-
9.2) TOWED ARRAY	A		-	-	5.198	-	-	0.642	-	-	0.654	-	-	-	-	-	-	-	-	-
Subtotal: 9) SA401 INITIAL TRAINING			-	-	18.112	-	-	2.350	-	-	2.396	-	-	-	-	-	-	-	-	-
10) SA900 CONSULTING SERVICES																				
10.1) ACOUSTICS	A		-	-	15.107	-	-	1.364	-	-	1.391	-	-	-	-	-	-	-	-	-
10.2) TOWED SYSTEMS	A		-	-	8.841	-	-	0.676	-	-	0.689	-	-	-	-	-	-	-	-	-
Subtotal: 10) SA900 CONSULTING SERVICES			-	-	23.948	-	-	2.040	-	-	2.080	-	-	-	-	-	-	-	-	-
Total			-	-	751.140	-	-	86.212	-	-	114.270	-	-	-	-	-	-	-	-	-

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

(†) indicates the presence of a P-5a

Footnotes:

(1) FY 2016 Congressional add of \$18M for towed arrays.

(2) The COTS UWC Engineering Support line (Cost Code SA303) requires a level of funding at or above the FY14 level (approximately \$5M per year) to keep submarines compatible and supporting communications between surface, submarines, and other craft - includes upgrades associated with hardware and software changes as well as testing. The "dip" shown in FY15, and continued in FY16, was a result of the Navy funding a higher departmental priority, and reduces operational updates until funding is restored to the required level in this area.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Aggregated Items: SSN Acoustics
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) SA102 TOWED SYSTEMS												
1.1) TB-34 FATLINE INTERFACE HWD		2012	CSC / Millersville, MD	C / FP	NAVSEA	Feb 2012	Feb 2013	11	17,000.00	Y		
1.1) TB-34 FATLINE INTERFACE HWD		2013	CSC / Millersville, MD	C / FP	NAVSEA	Mar 2013	Mar 2014	11	17,000.00	Y		
1.1) TB-34 FATLINE INTERFACE HWD		2014	CSC / Millersville, MD	C / FP	NAVSEA	Oct 2013	Oct 2014	11	17,000.00	Y		
1.1) TB-34 FATLINE INTERFACE HWD		2015	CSC / Millersville, MD	C / FP	NAVSEA	Oct 2014	Oct 2015	9	17,000.00	Y		
1.2) TB-34X FATLINE TOWED ARRAYS		2014	TBD / TBD	C / FP	NAVSEA	Sep 2015	May 2017	1	5,925K	Y		
1.2) TB-34X FATLINE TOWED ARRAYS		2016	TBD / TBD	C / FP	NAVSEA	Jul 2016	Jul 2017	3	1,224K	Y		
1.3) TB-29X THIN LINE TOWED ARRAYS ⁽¹⁾		2016	TBD / TBD	C / FP	NAVSEA	Sep 2016	Sep 2017	4	4,118K	Y		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics				Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	12.580	-	5.944	-	-	-	-	-	-	-	-	18.524
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	12.580	-	5.944	-	-	-	-	-	-	-	-	18.524
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	12.580	-	5.944	-	-	-	-	-	-	-	-	18.524
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding supports Technology Insertion, HF Active Components, and Transmit Group.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>													
B Kits													
Recurring													
1.1.1) SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT - NonOrganic ⁽³⁾	2 / 7.000	- / -	1 / 5.944	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 12.944	
1.1.2) SA101 SSN 21 LEGACY REPLACEMENT NRE - NonOrganic	- / 1.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.500	
<i>Subtotal: Recurring</i>	<i>- / 8.500</i>	<i>- / -</i>	<i>- / 5.944</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 14.444</i>	
<i>Subtotal: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>	<i>2 / 8.500</i>	<i>- / -</i>	<i>1 / 5.944</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>3 / 14.444</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 8.500</i>	<i>- / -</i>	<i>- / 5.944</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 14.444</i>	
Installation													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>	<i>- / 4.080</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 4.080</i>	
<i>Subtotal: Installation</i>	<i>- / 4.080</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 4.080</i>	
Total													
Total Cost (Procurement + Support + Installation)	12.580	-	5.944	-	-	-	-	-	-	-	-	18.524	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016					
Delivery Dates		Mar 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 4.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 4.080
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 4.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.080

Installation Schedule

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

Footnotes:
⁽³⁾ Funding supports Technology Insertion, HF Active Components, and Transmit Group.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics				Modification Number / Title: 2 / SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	120.782	1.243	-	-	-	-	-	-	-	-	-	122.025
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	120.782	1.243	-	-	-	-	-	-	-	-	-	122.025
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	120.782	1.243	-	-	-	-	-	-	-	-	-	122.025
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding supports the replacement of UYK-43, Technology Insertion, HF Active components and transmit group, replacement of obsolete components, and provides cabinet spacing for future requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 2 / SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT</i>													
B Kits													
Recurring													
1.1.1) SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT - NonOrganic ⁽⁴⁾	33 / 64.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 64.553	
<i>Subtotal: Recurring</i>	- / 64.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 64.553	
<i>Subtotal: SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT</i>	33 / 64.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 64.553	
<i>Subtotal: Procurement, All Modification Items</i>	- / 64.553	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 64.553	
Installation													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT</i>	- / 56.229	- / 1.243	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 57.472	
<i>Subtotal: Installation</i>	- / 56.229	- / 1.243	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 57.472	
Total													
Total Cost (Procurement + Support + Installation)	120.782	1.243	-	-	-	-	-	-	-	-	-	122.025	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 2 / SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT

Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA101 ACOUSTIC UPGRADES LEGACY REPLACEMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	32 / 56.229	1 / 1.243	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	33 / 57.472
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	32 / 56.229	1 / 1.243	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 57.472

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	32	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Out	32	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33

Footnotes:

(4) Funding supports the replacement of UYK-43, Technology Insertion, HF Active components and transmit group, replacement of obsolete components, and provides cabinet spacing for future requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics				Modification Number / Title: 3 / SA106 LOW COST CONFORMAL ARRAY KITS				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	96.549	12.472	12.720	-	-	-	-	-	-	-	-	121.741
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	96.549	12.472	12.720	-	-	-	-	-	-	-	-	121.741
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	96.549	12.472	12.720	-	-	-	-	-	-	-	-	121.741
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement of Low Cost Conformal Array (LCCA) to provide enhanced situational awareness and collision avoidance capability.

Production Lead Time: 17 months for first delivery / 12 months for follow-on.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 3 / SA106 LOW COST CONFORMAL ARRAY KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> SA106 LOW COST CONFORMAL ARRAY KITS													
B Kits													
Recurring													
1.1.1) SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS - NonOrganic ⁽⁵⁾	17 / 72.336	2 / 9.072	2 / 9.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 90.660	
<i>Subtotal: Recurring</i>	- / 72.336	- / 9.072	- / 9.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 90.660	
<i>Subtotal: SA106 LOW COST CONFORMAL ARRAY KITS</i>	17 / 72.336	2 / 9.072	2 / 9.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 90.660	
<i>Subtotal: Procurement, All Modification Items</i>	- / 72.336	- / 9.072	- / 9.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 90.660	
Installation													
<i>Modification Item 1 of 1:</i> SA106 LOW COST CONFORMAL ARRAY KITS	- / 24.213	- / 3.400	- / 3.468	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.081	
<i>Subtotal: Installation</i>	- / 24.213	- / 3.400	- / 3.468	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.081	
Total													
Total Cost (Procurement + Support + Installation)	96.549	12.472	12.720	-	-	-	-	-	-	-	-	121.741	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 3 / SA106 LOW COST CONFORMAL ARRAY KITS

Modification Item 1 of 1: SA106 LOW COST CONFORMAL ARRAY KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Apr 2016					
Delivery Dates	Apr 2016	Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	15 / 24.213	2 / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	17 / 27.613
FY 2015	- / -	- / -	2 / 3.468	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.468
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 24.213	2 / 3.400	2 / 3.468	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 31.081

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	15	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19
Out	15	-	-	2	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19

Footnotes:

(5) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics				Modification Number / Title: 4 / SA303 688/688I TECHNOLOGY INSERTION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	44.526	57.840	58.992	-	-	-	-	-	-	-	-	161.358
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	44.526	57.840	58.992	-	-	-	-	-	-	-	-	161.358
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	44.526	57.840	58.992	-	-	-	-	-	-	-	-	161.358
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 4 / SA303 688/688I TECHNOLOGY INSERTION KITS			
Models of Systems Affected: SSN				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS</i>													
B Kits													
Non-Recurring													
1.1.1) SA303 688i TECHNOLOGY INSERTION KITS - NonOrganic ⁽⁶⁾	6 / 44.526	6 / 45.078	6 / 45.978	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 135.582	
<i>Subtotal: Non-Recurring</i>	<i>- / 44.526</i>	<i>- / 45.078</i>	<i>- / 45.978</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 135.582</i>	
<i>Subtotal: SA303 688/688I TECHNOLOGY INSERTION KITS</i>	<i>6 / 44.526</i>	<i>6 / 45.078</i>	<i>6 / 45.978</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>18 / 135.582</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 44.526</i>	<i>- / 45.078</i>	<i>- / 45.978</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 135.582</i>	
Installation													
<i>Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS</i>													
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / 12.762</i>	<i>- / 13.014</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 25.776</i>	
Total													
Total Cost (Procurement + Support + Installation)	44.526	57.840	58.992	-	-	-	-	-	-	-	-	161.358	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 4 / SA303 688/688I TECHNOLOGY INSERTION KITS

Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Apr 2016					
Delivery Dates	Apr 2016	Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 688i TECHNOLOGY INSERTION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	6 / 12.762	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	6 / 12.762
FY 2015	- / -	- / -	6 / 13.014	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 13.014
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	6 / 12.762	6 / 13.014	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 25.776

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	3	3	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	3	3	-	-	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12

Footnotes:
 (6) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics			Modification Number / Title: 6 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS					

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	11.060	-	8.583	-	-	-	-	-	-	-	-	19.643
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.060	-	8.583	-	-	-	-	-	-	-	-	19.643
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.060	-	8.583	-	-	-	-	-	-	-	-	19.643
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Inserts Tech Insertions onto Seawolf Class Submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 6 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>													
B Kits													
Recurring													
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS - NonOrganic ⁽⁷⁾	1 / 8.000	- / -	1 / 8.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 16.583	
<i>Subtotal: Recurring</i>	<i>- / 8.000</i>	<i>- / -</i>	<i>- / 8.583</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 16.583</i>	
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>	<i>1 / 8.000</i>	<i>- / -</i>	<i>1 / 8.583</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>2 / 16.583</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 8.000</i>	<i>- / -</i>	<i>- / 8.583</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 16.583</i>	
Installation													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>													
<i>Subtotal: Installation</i>	<i>- / 3.060</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.060</i>	
Total													
Total Cost (Procurement + Support + Installation)	11.060	-	8.583	-	-	-	-	-	-	-	-	19.643	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 6 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Manufacturer Information							
Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016					
Delivery Dates		Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 3.060	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 3.060
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 3.060	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.060

Installation Schedule

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

Footnotes:

(7) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics				Modification Number / Title: 7 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	126.561	3.165	13.407	-	-	-	-	-	-	-	-	143.133
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	126.561	3.165	13.407	-	-	-	-	-	-	-	-	143.133
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	126.561	3.165	13.407	-	-	-	-	-	-	-	-	143.133
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

[SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS] Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2147 / SSN Acoustics					Modification Number / Title: 7 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS													
B Kits													
Recurring													
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS - NonOrganic ⁽⁸⁾	8 / 99.427	- / -	1 / 13.407	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 112.834	
<i>Subtotal: Recurring</i>	- / 99.427	- / -	- / 13.407	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 112.834	
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS</i>	8 / 99.427	- / -	1 / 13.407	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 112.834	
<i>Subtotal: Procurement, All Modification Items</i>	- / 99.427	- / -	- / 13.407	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 112.834	
Installation													
<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS	- / 27.134	- / 3.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.299	
<i>Subtotal: Installation</i>	- / 27.134	- / 3.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.299	
Total													
Total Cost (Procurement + Support + Installation)	126.561	3.165	13.407	-	-	-	-	-	-	-	-	143.133	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 7 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016					
Delivery Dates		Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 27.134	1 / 3.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 30.299
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 27.134	1 / 3.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 30.299

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	7	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	7	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

Footnotes:
 (8) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics			Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS					

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	8.583	-	-	-	-	-	-	-	-	8.583
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	8.583	-	-	-	-	-	-	-	-	8.583
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	8.583	-	-	-	-	-	-	-	-	8.583
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.

[SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS] Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Models of Systems Affected: SSN ACOUSTICS	Modification Type: SHIPALT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS												
B Kits												
Recurring												
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS - NonOrganic ⁽⁹⁾	- / -	- / -	1 / 8.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.583
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 8.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.583
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS</i>	- / -	- / -	1 / 8.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.583
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 8.583	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.583

Installation

<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Total

Total Cost (Procurement + Support + Installation)	0.000	-	8.583	-	-	-	-	-	-	-	-	8.583
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UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016					
Delivery Dates		Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

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

Footnotes:

(9) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 9 / SA303 SSBN CONVERSION
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	10.336	-	-	-	-	-	-	-	-	10.336
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	10.336	-	-	-	-	-	-	-	-	10.336
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	10.336	-	-	-	-	-	-	-	-	10.336

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides sonar modernization to the SSBN (TRIDENT) Class Submarine Fleet.

[SA303 SSBN CONVERSION] Provides technology insertion upgrade kits to A-RCI previously installed systems on the SSBN Class, providing the latest and most current capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2147 / SSN Acoustics						Modification Number / Title: 9 / SA303 SSBN CONVERSION			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 SSBN CONVERSION</i>													
B Kits													
Non-Recurring													
1.1.1) SA303 SSBN CONVERSION - NonOrganic ⁽¹⁰⁾	- / -	- / -	2 / 10.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 10.336	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / 10.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.336	
<i>Subtotal: SA303 SSBN CONVERSION</i>	- / -	- / -	2 / 10.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 10.336	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 10.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.336	
Installation													
<i>Modification Item 1 of 1: SA303 SSBN CONVERSION</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	10.336	-	-	-	-	-	-	-	-	10.336	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2147 / SSN Acoustics	Modification Number / Title: 9 / SA303 SSBN CONVERSION

Modification Item 1 of 1: SA303 SSBN CONVERSION

Manufacturer Information

Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016					
Delivery Dates		Apr 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 SSBN CONVERSION

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

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

Footnotes:

(10) *Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in the BLI 2150 exhibit.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	248.765	-	248.765	292.675	331.440	446.113	514.179	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	248.765	-	248.765	292.675	331.440	446.113	514.179	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	248.765	-	248.765	292.675	331.440	446.113	514.179	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	8.178	-	8.178	16.057	16.147	11.921	12.152	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

*Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. BLI 2147 reflects the FY16 procurements (costs and quantities) for the associated FY17 installations shown in this exhibit.

MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program procures submarine systems and equipment for installation on all classes of submarines to maintain clear acoustical, tactical, and operational superiority over submarine and surface combatants in all scenarios through detection, classification, localization, and contact following. All future acoustic upgrades of Acoustic Rapid COTS Insertion (A-RCI) equipment are incorporated into this budget item. Future procurements, detailed below, are focused on supporting Littoral Warfare, Regional Sea Denial, Strike Group Support, Diesel Submarine Detection, Surveillance, and Peacetime Engagement. A-RCI is a multi-phased, evolutionary development effort geared toward addressing acoustic superiority issues through the rapid introduction of interim products applicable to SSN 688, 688I Flight, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines. A-RCI Phase II provided towed array processing improvements; A-RCI Phase III provides spherical array processing improvements, and A-RCI Phase IV provides AN/BSY-1 High Frequency Upgrades for SSN 688I, SSGN, and Seawolf Classes. As part of Navy's plan to maintain acoustic superiority for in-service submarines, reduce obsolescence, and provide increased capability, the A-RCI program will modernize and sustain approximately 8-12 SSNs and 2-3 SSBNs per year through executing bi-annual software Advanced Processing Builds (APBs) and bi-annual hardware Technical Insertions (TIs).

Towed system procurements of TB-29X and TB-34X provide reliability improvements to maintain acoustic superiority, increase the service life, reduce failures, and maintain the inventory of arrays available for fleet use. Towed Array Refurbishment & Reliability Upgrades sustain current in-service TB-16/34 fat line and TB-23/29A thin line towed arrays. Towed System procurements provide upgrade/support for OK-276, OK-634, OK-542 and OA-9070 Series Towed Array Handlers installed on SSN688, SSN 688I, SSN21, SSGN, VA Class, and SSBN 726 Class Submarines.

Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability in high contact density environments experienced in the littorals. Procurement of VA Unique Sensors sustains unique hull sensor systems for the VA platforms under the Critical Transducer Program as VA Class submarines transition into fleet service.

Procurement of the OHIO Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the OHIO class submarines.

Procurement of the VIRGINIA Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the VIRGINIA class submarines.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2150 / SSN Acoustic 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	
<p>Procurement of the High Frequency Sail Array (HFSA) provides high frequency active and passive capability supporting ASW and ASUW for SSNs, and contact avoidance for SSNs and SSBNs. This capability enables close in situational awareness with high bearing accuracy. HFSA improves situational awareness and tactical control in high density contact areas, of particular importance for Pacific Fleet SSBNs based at Bangor WA inside the Puget Sound with three major commercial shipping ports.</p> <p>Procurement of hydrophones, transducers, cables, associated Out-Board Electronics bottles (OBE), and acoustic windows for In-Service Undersea Warfare Sonars on all classes of submarines are required to support units in the fleet on a replacement basis, at regularly scheduled ship overhauls, and at interim availabilities when units are defective, and for upgrades.</p> <p>Installation funds are for actual hardware installations during shipyard and pier-side availabilities. Procurements support a 12-24 month lead time for installations.</p> <p>[P40A / SA102 TOWED SYSTEMS]: Procures TB-34X Fatline and TB-29X Thinline Arrays to provide increase acoustic capability and reliability to the fleet. The program supports N8's response to the Fleet Forces Command's Urgent Operational Needs Statement message (dated 15 June 2009) which requests that a reliable Thinline Towed Array is critically needed to support submarine operations in the Western Pacific Area of Operations, refurbishment/upgrades reliability improvements to TB-16 series, TB-23, TB-29A to maintain in-service Towed Array inventory and increased array availability. Reliability improvements include new telemetry, hose material, improved internal connectors, hydrophones, tow cables, and Vibration Isolation Modules (VIMS), and Heading Sensors.</p> <p>[P40A / SA105 SONAR SUPPORT EQUIPMENT]: Funds provided to procure BQN-17(A) and associated equipment.</p> <p>[P40A / SA106 HULL SENSORS]: Procurement of Low Cost Conformal Array (LCCA) provides enhanced situational awareness and collision avoidance capability, and VA Unique Sensors required to sustain unique hull sensor systems for the VA platforms under the Critical Transducer Program.</p> <p>[P40A / SA201 BLOCK CHANGES]: Minor Engineering Change Proposals (ECP's) and hardware changes affecting all classes of submarines are procured through this line. Funding will be used to support non-recurring first article test efforts associated with the changing COTS environment as well as Reliability, Maintainability, and Availability modifications requested by the Fleet. This line also supports the procurement of hardware necessary to implement the ECP's into the System or end item being procured.</p> <p>[P40A / SA202 PRODUCTION/ENGINEERING SUPPORT]: Funding supports the procurement of Acoustics Upgrades equipment, Towed Systems hardware, and Large Vertical Array equipment.</p> <p>[P40A / SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT]: Funding procures various towed array test equipment simulators and handling system/stowage tube inspection test equipment.</p> <p>[P40A / SA302 OP TRAINER UPGRADES]: Funding procures hardware upgrades and production engineering for Acoustic Upgrades operational trainer sites.</p> <p>[P40A / SA303 COTS SUPPORTABILITY UPGRADES]: Provides for Technology Refresh/Insertion for A-RCI kits. Tech Refresh provides for Software and Hardware updates to accommodate shifts in technology to the execution procurement years' "current state-of-the-practice" hardware. A-RCI has already undergone several technology insertion phases to accommodate integrating Advanced Processing Builds (APBs). Updates are necessary for signal and display processing hardware as APBs are introduced or as commercial support for the hardware is phased out. Tech Insertion procures the hardware necessary to upgrade and back fit the A-RCI kits. When A-RCI systems are being upgraded to subsequent phases of A-RCI, signal processing and display hardware will be procured from this line to accommodate common technology consistent with the APB being implemented in the year of introduction. In future years, requirements include additional equipment in technology insertion to prevent COTS hardware from becoming unsupported/obsolete. Funding also supports the procurement and engineering for COTS Underwater Comms.</p> <p>[P40A / SA401 INITIAL TRAINING]: Provides for initial training curriculum development, training management materials, exercise control group development, pilot services, and services to the Fleet.</p> <p>[P40A / SA900 CONSULTING SERVICES]: Includes specification validation, contract deliverable monitoring, prime contractor monitoring for cost, schedule, and performance slips, ILS planning, and coordination of GFI. Additional support will include production planning, business case analysis, technical refresh and insertion planning and market analysis to review implementation strategies for procurement of current year "state of the practice" hardware in Acoustics programs. Consulting services will also provide production monitoring, installation planning and coordination support.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2150 / SSN Acoustic 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	
<p>[P40A - 2 / PU100 SONAR SWITCHES AND TRANSDUCERS]: Included in this line are procurements of transducers, hydrophones, windows, cables, Out-Board Electronics (OBE), domes and their associated mounting hardware, and other support equipment and materials for the following Undersea Warfare Sonars: BSY-1, BSY-2, BQQ-5, BQQ-6, BQQ-10, BQG-5, BQS-15, BQS-14A, WQC-2, WLR-9/12, BQN-13, BQN-17, BQA-8, BQH-1 and BQS-25.</p> <p>[P40A - 2 / PU200 ENGINEERING CHANGES]: Funds ECPs, Value Engineering awards, and hardware changes affecting the SSN 688, 688I, SEAWOLF, SSBN 726 (TRIDENT), SSGN/SSBN, and VA Class submarines.</p> <p>[P40A - 2 / PU300 PROGRAM SUPPORT]: Supports the procurement of equipment of sonar hydrophones, transducers, cables, Out-Board Electronics (OBEs), and acoustic windows for In-Service Undersea Warfare Sonars.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars

P-1 Line Item Number / Title:
2150 / SSN Acoustic 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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SSN Acoustics	P-5a		- / 0.000	- / -	- / -	- / 113.593	- / -	- / 113.593
P-40a	Sonar Switches and Transducers			- / 0.000	- / -	- / -	- / 11.592	- / -	- / 11.592
P-3a	1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT)			- / 0.000	- / -	- / -	- / 2.182	- / -	- / 2.182
P-3a	2 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)			- / 0.000	- / -	- / -	- / 12.975	- / -	- / 12.975
P-3a	3 / SA106 HIGH FREQUENCY SAIL ARRAY (TBD)			- / 0.000	- / -	- / -	- / 3.846	- / -	- / 3.846
P-3a	4 / SA106 OHIO CLASS LARGE VERTICAL ARRAY (TBD)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-3a	5 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY (TBD)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-3a	6 / SA303 688/688I TECHNOLOGY INSERTION KITS (SHIPALT)			- / 0.000	- / -	- / -	- / 13.274	- / -	- / 13.274
P-3a	7 / SA303 SSGN TECH INSERTION KITS (SHIPALT)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-3a	8 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS (SHIPALT)			- / 0.000	- / -	- / -	- / 12.037	- / -	- / 12.037
P-3a	9 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS (SHIPALT)			- / 0.000	- / -	- / -	- / 16.957	- / -	- / 16.957
P-3a	10 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS (SHIPALT)			- / 0.000	- / -	- / -	- / 38.300	- / -	- / 38.300
P-3a	11 / SA303 SSBN CONVERSION (SHIPALT)			- / 0.000	- / -	- / -	- / 24.009	- / -	- / 24.009
P-40	Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 248.765	- / -	- / 248.765

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	SSN Acoustics	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Sonar Switches and Transducers			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 2.182
P-3a	2 / SA106 LOW COST CONFORMAL ARRAY KITS (SHIPALT)			- / 13.234	- / 13.498	- / 13.769	- / 24.259	Continuing	Continuing
P-3a	3 / SA106 HIGH FREQUENCY SAIL ARRAY (TBD)			- / 6.117	- / 6.121	- / 8.406	- / 6.492	- / 2.249	- / 33.231
P-3a	4 / SA106 OHIO CLASS LARGE VERTICAL ARRAY (TBD)			- / -	- / 18.525	- / 18.896	- / 29.400	- / 20.866	- / 87.687
P-3a	5 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY (TBD)			- / -	- / -	- / 43.405	- / 44.273	- / -	- / 87.678
P-3a	6 / SA303 688/688I TECHNOLOGY INSERTION KITS (SHIPALT)			- / 55.808	- / 64.904	- / 55.562	- / 11.974	Continuing	Continuing
P-3a	7 / SA303 SSGN TECH INSERTION KITS (SHIPALT)			- / -	- / 16.262	- / 21.281	- / 4.788	- / -	- / 42.331
P-3a	8 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS (SHIPALT)			- / 12.278	- / 3.415	- / -	- / -	Continuing	Continuing
P-3a	9 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS (SHIPALT)			- / 3.348	- / -	- / -	- / -	Continuing	Continuing
P-3a	10 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS (SHIPALT)			- / 40.182	- / 10.245	- / 55.743	- / 116.081	Continuing	Continuing

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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 02: Communications & Electronics Equip /
 BSA 2: Ship Sonars **P-1 Line Item Number / Title:**
 2150 / SSN Acoustic 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

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	11 / SA303 SSBN CONVERSION (SHIPALT)			- / 28.667	- / 23.757	- / 25.478	- / 19.010	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 292.675	- / 331.440	- / 446.113	- / 514.179	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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment						Aggregated Items Title: SSN Acoustics								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) SA102 TOWED SYSTEMS																				
1.1) TB-34X FATLINE TOWED ARRAYS	B		-	-	-	-	-	-	-	-	-	1,248K	5	6.242	-	-	-	1,248K	5	6.242
1.2) TB-29X THIN LINE TOWED ARRAYS ⁽¹⁾	B		-	-	-	-	-	-	-	-	-	4,200K	3	12.600	-	-	-	4,200K	3	12.600
1.3) TOWED ARRAY REFURBISHMENT & UPGRADES	A		-	-	-	-	-	-	-	-	-	-	-	29.021	-	-	-	-	-	29.021
1.4) TOWED ARRAY HANDLER SYSTEM UPGRADE	A		-	-	-	-	-	-	-	-	-	-	-	7.408	-	-	-	-	-	7.408
Subtotal: 1) SA102 TOWED SYSTEMS			-	-	0.000	-	-	-	-	-	-	-	-	55.271	-	-	-	-	-	55.271
2) SA105 SONAR SUPPORT EQUIPMENT																				
2.1) BQN-17	A		-	-	-	-	-	-	-	-	-	-	-	0.887	-	-	-	-	-	0.887
Subtotal: 2) SA105 SONAR SUPPORT EQUIPMENT			-	-	0.000	-	-	-	-	-	-	-	-	0.887	-	-	-	-	-	0.887
3) SA106 HULL SENSORS																				
3.1) VA UNIQUE SENSOR	A		-	-	-	-	-	-	-	-	-	-	-	5.405	-	-	-	-	-	5.405
Subtotal: 3) SA106 HULL SENSORS			-	-	0.000	-	-	-	-	-	-	-	-	5.405	-	-	-	-	-	5.405
4) SA201 BLOCK CHANGES																				
4.1) TOWED SYSTEMS ECP'S	A		-	-	-	-	-	-	-	-	-	-	-	1.701	-	-	-	-	-	1.701
4.2) ACOUSTICS	A		-	-	-	-	-	-	-	-	-	-	-	3.022	-	-	-	-	-	3.022
Subtotal: 4) SA201 BLOCK CHANGES			-	-	0.000	-	-	-	-	-	-	-	-	4.723	-	-	-	-	-	4.723
5) SA202 PRODUCTION/ENGINEERING SUPPORT																				
5.1) ACOUSTICS	A		-	-	-	-	-	-	-	-	-	-	-	3.168	-	-	-	-	-	3.168
5.2) TOWED ARRAYS/HANDLING EQUIPMENT	A		-	-	-	-	-	-	-	-	-	-	-	3.111	-	-	-	-	-	3.111
Subtotal: 5) SA202 PRODUCTION/ENGINEERING SUPPORT			-	-	0.000	-	-	-	-	-	-	-	-	6.279	-	-	-	-	-	6.279
6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT																				
6.1) TOWED ARRAY UNIQUE TEST EQUIPMENT	A		-	-	-	-	-	-	-	-	-	-	-	1.259	-	-	-	-	-	1.259
Subtotal: 6) SA203 TOWED ARRAY UNIQUE TEST EQUIPMENT			-	-	0.000	-	-	-	-	-	-	-	-	1.259	-	-	-	-	-	1.259
7) SA302 OP TRAINER UPGRADES																				

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2150 / SSN Acoustic Equipment **Aggregated Items Title:** SSN Acoustics

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
7.1) OP TRAINER GFE	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.112
Subtotal: 7) SA302 OP TRAINER UPGRADES			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.112
8) SA303 COTS SUPPORTABILITY UPGRADES																				
8.1) INSTALL SUPPORT	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.534
8.2) AEMP	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.559
8.3) COTS UWC ENGINEERING SUPPORT	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.764
8.4) COTS TECH INSERTION	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.521
8.5) SHIPYARD INSTALLATION INDUSTRIAL SUPPORT	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.713
Subtotal: 8) SA303 COTS SUPPORTABILITY UPGRADES			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34.091
9) SA401 INITIAL TRAINING																				
9.1) ACOUSTICS	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.777
9.2) TOWED ARRAY	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.667
Subtotal: 9) SA401 INITIAL TRAINING			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.444
10) SA900 CONSULTING SERVICES																				
10.1) ACOUSTICS	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.419
10.2) TOWED SYSTEMS	A		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.703
Subtotal: 10) SA900 CONSULTING SERVICES			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.122
Total			-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	113.593

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

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Aggregated Items: SSN Acoustics
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) SA102 TOWED SYSTEMS												
1.2) TB-29X THIN LINE TOWED ARRAYS		2017	TBD / TBD	C / FP	NAVSEA	Jun 2017	Jun 2018	3	4,200K	Y		

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2150 / SSN Acoustic Equipment **Aggregated Items Title:** Sonar Switches and Transducers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) PU100 SONAR SWITCHES AND TRANSDUCERS ⁽¹⁾																				
1.2) CW-1147 DOME	A		-	-	-	-	-	-	-	-	18,727.20	10	0.187	-	-	-	18,727.20	10	0.187	
1.3) CW-1181E DOME	A		-	-	-	-	-	-	-	-	5,202.00	15	0.078	-	-	-	5,202.00	15	0.078	
1.4) DT-574 100FT	A		-	-	-	-	-	-	-	-	2,080.80	100	0.208	-	-	-	2,080.80	100	0.208	
1.6) CABLES	A		-	-	-	-	-	-	-	-	-	-	0.710	-	-	-	-	-	0.710	
1.7) DT-574 50FT	A		-	-	-	-	-	-	-	-	572.70	300	0.172	-	-	-	572.70	300	0.172	
1.8) CW-1181C	A		-	-	-	-	-	-	-	-	5,202.00	20	0.104	-	-	-	5,202.00	20	0.104	
1.9) MX-10624 Window	A		-	-	-	-	-	-	-	-	13,941.36	10	0.139	-	-	-	13,941.36	10	0.139	
1.10) DT-5740 LSA OBE	A		-	-	-	-	-	-	-	-	17,006.53	20	0.340	-	-	-	17,006.53	20	0.340	
1.11) DT-511 Hydrophone	A		-	-	-	-	-	-	-	-	29,408.64	15	0.441	-	-	-	29,408.64	15	0.441	
1.12) DT-592 Hydrophone	A		-	-	-	-	-	-	-	-	41,346.54	18	0.744	-	-	-	41,346.54	18	0.744	
1.13) TR-233 Transducer	A		-	-	-	-	-	-	-	-	10,404.00	20	0.208	-	-	-	10,404.00	20	0.208	
1.14) TR-282 Transducer	A		-	-	-	-	-	-	-	-	28,469.13	7	0.199	-	-	-	28,469.13	7	0.199	
1.16) TR-302 Window	A		-	-	-	-	-	-	-	-	1,040.40	10	0.010	-	-	-	1,040.40	10	0.010	
1.17) TR-321 Transducer	A		-	-	-	-	-	-	-	-	17,000.00	9	0.153	-	-	-	17,000.00	9	0.153	
1.18) TR-321 V CTD	A		-	-	-	-	-	-	-	-	19,058.23	20	0.381	-	-	-	19,058.23	20	0.381	
1.19) TR-338 Transducer	A		-	-	-	-	-	-	-	-	24,000.00	15	0.360	-	-	-	24,000.00	15	0.360	
1.20) TR-341 Transducer	A		-	-	-	-	-	-	-	-	18,360.00	20	0.367	-	-	-	18,360.00	20	0.367	
1.21) WAA OBE	A		-	-	-	-	-	-	-	-	12,484.80	50	0.624	-	-	-	12,484.80	50	0.624	
1.22) NCC CONNECTORS	A		-	-	-	-	-	-	-	-	1,040.40	52	0.054	-	-	-	1,040.40	52	0.054	
1.23) DT-699 HFSA RECEIVE	A		-	-	-	-	-	-	-	-	73,868.40	6	0.443	-	-	-	73,868.40	6	0.443	
1.24) TR-364 HFSP XMIT	A		-	-	-	-	-	-	-	-	161,807.14	1	0.162	-	-	-	161,807.14	1	0.162	
1.26) TR-281	A		-	-	-	-	-	-	-	-	23,327.62	6	0.140	-	-	-	23,327.62	6	0.140	
1.27) TR-302 Transducer First Article	A		-	-	-	-	-	-	-	-	150,000.00	2	0.300	-	-	-	150,000.00	2	0.300	
1.28) TR-317 FIRST ARTICLE	A		-	-	-	-	-	-	-	-	81,640.00	20	1.633	-	-	-	81,640.00	20	1.633	

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2150 / SSN Acoustic Equipment **Aggregated Items Title:** Sonar Switches and Transducers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1.29) TR-353 FIRST ARTICLE	A		-	-	-	-	-	-	-	-	81,640.00	20	1.633	-	-	-	81,640.00	20	1.633	
1.30) DT-513 Hydrophone	A		-	-	-	-	-	-	-	-	4,373.17	82	0.359	-	-	-	4,373.17	82	0.359	
1.31) DT-100 HFSA RECEIVE	A		-	-	-	-	-	-	-	-	78,030.00	2	0.156	-	-	-	78,030.00	2	0.156	
Subtotal: 1) PU100 SONAR SWITCHES AND TRANSDUCERS			-	-	0.000	-	-	-	-	-	-	-	10.305	-	-	-	-	-	10.305	
2) PU200 ENGINEERING CHANGES																				
2.1) ENGINEERING CHANGES	A		-	-	-	-	-	-	-	-	-	-	0.214	-	-	-	-	-	0.214	
Subtotal: 2) PU200 ENGINEERING CHANGES			-	-	0.000	-	-	-	-	-	-	-	0.214	-	-	-	-	-	0.214	
3) PU300 PROGRAM SUPPORT																				
3.1) PROGRAM SUPPORT	A		-	-	-	-	-	-	-	-	-	-	1.073	-	-	-	-	-	1.073	
Subtotal: 3) PU300 PROGRAM SUPPORT			-	-	0.000	-	-	-	-	-	-	-	1.073	-	-	-	-	-	1.073	
Total			-	-	0.000	-	-	-	-	-	-	-	11.592	-	-	-	-	-	11.592	

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

Footnotes:

⁽¹⁾ Due to Fleet usage requirements to maintain submarines in an operational status, adjustments are made to quantities throughout the FYDP. Items not procured in a single year do not impact the production line.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	2.182	-	2.182	-	-	-	-	-	2.182
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	2.182	-	2.182	-	-	-	-	-	2.182
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	2.182	-	2.182	-	-	-	-	-	2.182
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding supports Technology Insertion, HF Active Components, and Transmit Group.

[SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT] Funding supports Technology Insertion, HF Active Components, and Transmit Group.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>													
B Kits													
Recurring													
1.1.1) SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT - NonOrganic ⁽²⁾	- / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
<i>Subtotal: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>	<i>- / -</i>	<i>- / -</i>	<i>1 / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>1 / -</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	
Installation													
<i>Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.182</i>	<i>- / -</i>	<i>- / 2.182</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.182</i>	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.182</i>	<i>- / -</i>	<i>- / 2.182</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.182</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	2.182	-	2.182	-	-	-	-	-	2.182	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 1 / SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Modification Item 1 of 1: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016					
Delivery Dates		Mar 2017					

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA101 ACOUSTIC UPGRADES SSN 21 LEGACY REPLACEMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 2.182	- / -	1 / 2.182	- / -	- / -	- / -	- / -	- / -	1 / 2.182
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 2.182	- / -	1 / 2.182	- / -	- / -	- / -	- / -	- / -	1 / 2.182

Installation Schedule

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

Footnotes:

(2) Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 2 / SA106 LOW COST CONFORMAL ARRAY KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	12.975	-	12.975	13.234	13.498	13.769	24.259	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	12.975	-	12.975	13.234	13.498	13.769	24.259	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	12.975	-	12.975	13.234	13.498	13.769	24.259	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement of Low Cost Conformal Array (LCCA) to provide enhanced situational awareness and collision avoidance capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 2 / SA106 LOW COST CONFORMAL ARRAY KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA106 LOW COST CONFORMAL ARRAY KITS</i>													
B Kits													
Recurring													
1.1.1) SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS - NonOrganic ⁽³⁾	- / -	- / -	2 / -	2 / 9.437	- / -	2 / 9.437	2 / 9.626	2 / 9.818	2 / 10.015	4 / 20.430	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 9.437	- / -	- / 9.437	- / 9.626	- / 9.818	- / 10.015	- / 20.430	Continuing	Continuing	
<i>Subtotal: SA106 LOW COST CONFORMAL ARRAY KITS</i>	- / -	- / -	2 / -	2 / 9.437	- / -	2 / 9.437	2 / 9.626	2 / 9.818	2 / 10.015	4 / 20.430	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 9.437	- / -	- / 9.437	- / 9.626	- / 9.818	- / 10.015	- / 20.430	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: SA106 LOW COST CONFORMAL ARRAY KITS</i>	- / 0.000	- / -	- / -	- / 3.538	- / -	- / 3.538	- / 3.608	- / 3.680	- / 3.754	- / 3.829	- / 7.809	- / 26.218	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 3.538	- / -	- / 3.538	- / 3.608	- / 3.680	- / 3.754	- / 3.829	- / 7.809	- / 26.218	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	12.975	-	12.975	13.234	13.498	13.769	24.259	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 2 / SA106 LOW COST CONFORMAL ARRAY KITS

Modification Item 1 of 1: SA106 LOW COST CONFORMAL ARRAY KITS

Manufacturer Information

Manufacturer Name: LOCKHEED MARTIN	Manufacturer Location: SYRACUSE, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021
Delivery Dates		Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA106 HULL SENSORS LOW COST CONFORMAL ARRAY KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 3.538	- / -	2 / 3.538	- / -	- / -	- / -	- / -	- / -	2 / 3.538
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.608	- / -	- / -	- / -	- / -	2 / 3.608
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.680	- / -	- / -	- / -	2 / 3.680
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.754	- / -	- / -	2 / 3.754
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.829	- / -	2 / 3.829
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 7.809	4 / 7.809
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 3.538	- / -	2 / 3.538	2 / 3.608	2 / 3.680	2 / 3.754	2 / 3.829	4 / 7.809	14 / 26.218

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	4	14
Out	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	-	-	2	-	4	14

Footnotes:

⁽³⁾ Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 3 / SA106 HIGH FREQUENCY SAIL ARRAY				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	3.846	-	3.846	6.117	6.121	8.406	6.492	2.249	33.231
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	3.846	-	3.846	6.117	6.121	8.406	6.492	2.249	33.231
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	3.846	-	3.846	6.117	6.121	8.406	6.492	2.249	33.231
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[SA106 HIGH FREQUENCY SAIL ARRAY] The High Frequency Sail Array (HFSA) provides high frequency active and passive capability supporting ASW and ASUW for SSNs, and contact avoidance for SSNs and SSBNs.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 3 / SA106 HIGH FREQUENCY SAIL ARRAY			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA106 HIGH FREQUENCY SAIL ARRAY</i>													
B Kits													
Recurring													
1.1.1) SA106 HIGH FREQUENCY SAIL ARRAY - NonOrganic	- / -	- / -	- / -	2 / 3.846	- / -	2 / 3.846	1 / 1.961	2 / 4.002	2 / 4.082	1 / 2.082	- / -	8 / 15.973	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 3.846	- / -	- / 3.846	- / 1.961	- / 4.002	- / 4.082	- / 2.082	- / -	- / 15.973	
<i>Subtotal: SA106 HIGH FREQUENCY SAIL ARRAY</i>	- / -	- / -	- / -	2 / 3.846	- / -	2 / 3.846	1 / 1.961	2 / 4.002	2 / 4.082	1 / 2.082	- / -	8 / 15.973	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 3.846	- / -	- / 3.846	- / 1.961	- / 4.002	- / 4.082	- / 2.082	- / -	- / 15.973	
Installation													
<i>Modification Item 1 of 1: SA106 HIGH FREQUENCY SAIL ARRAY</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 4.156	- / 2.119	- / 4.324	- / 4.410	- / 2.249	- / 17.258	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	3.846	-	3.846	6.117	6.121	8.406	6.492	2.249	33.231	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 3 / SA106 HIGH FREQUENCY SAIL ARRAY

Modification Item 1 of 1: SA106 HIGH FREQUENCY SAIL ARRAY

Manufacturer Information

Manufacturer Name: NUWC Neport	Manufacturer Location: Newport, RI
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates			May 2018	May 2019	May 2020	May 2021	May 2022

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA106 HIGH FREQUENCY SAIL ARRAY

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.156	- / -	- / -	- / -	- / -	2 / 4.156
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.119	- / -	- / -	- / -	1 / 2.119
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.324	- / -	- / -	2 / 4.324
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.410	- / -	2 / 4.410
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.249	1 / 2.249
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.156	1 / 2.119	2 / 4.324	2 / 4.410	1 / 2.249	8 / 17.258

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	2	-	-	-	-	2	-	1	8
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	1	-	-	-	-	2	-	-	-	-	2	-	1	8

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 4 / SA106 OHIO CLASS LARGE VERTICAL ARRAY				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	18.525	18.896	29.400	20.866	87.687
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	18.525	18.896	29.400	20.866	87.687
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	18.525	18.896	29.400	20.866	87.687
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[SA106 OHIO CLASS LARGE VERTICAL ARRAY] The Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for OHIO class submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 4 / SA106 OHIO CLASS LARGE VERTICAL ARRAY			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA106 OHIO CLASS LARGE VERTICAL ARRAY</i>													
B Kits													
Recurring													
1.1.1) SA106 OHIO CLASS LARGE VERTICAL ARRAY - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 18.525	1 / 18.896	1 / 19.273	- / -	3 / 56.694	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.525	- / 18.896	- / 19.273	- / -	- / 56.694	
<i>Subtotal: SA106 OHIO CLASS LARGE VERTICAL ARRAY</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 18.525	1 / 18.896	1 / 19.273	- / -	3 / 56.694	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.525	- / 18.896	- / 19.273	- / -	- / 56.694	
Installation													
<i>Modification Item 1 of 1: SA106 OHIO CLASS LARGE VERTICAL ARRAY</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.127	- / 20.866	- / 30.993	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	18.525	18.896	29.400	20.866	87.687	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 4 / SA106 OHIO CLASS LARGE VERTICAL ARRAY

Modification Item 1 of 1: SA106 OHIO CLASS LARGE VERTICAL ARRAY

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates					Nov 2018	Nov 2019	Nov 2020
Delivery Dates					Nov 2020	Nov 2021	Nov 2022

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA106 OHIO CLASS LARGE VERTICAL ARRAY

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.127	1 / 10.127
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.330	1 / 10.330
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.536	1 / 10.536
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.127	2 / 20.866
												3 / 30.993

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 5 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	43.405	44.273	-	87.678
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	43.405	44.273	-	87.678
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	43.405	44.273	-	87.678
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY] Procurement of the VIRGINIA Class Large Vertical Array (LVA) provides improved detection and enhanced tactical situational awareness capability for tracking targets of interest, and supports acoustic superiority objectives for the VIRGINIA class submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 5 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY

Models of Systems Affected: [No Model Specified]	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement												
<i>Modification Item 1 of 1:</i> SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY												
B Kits												
Recurring												
1.1.1) SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 43.405	1 / 44.273	- / -	2 / 87.678
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.405	- / 44.273	- / -	- / 87.678
<i>Subtotal: SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 43.405	1 / 44.273	- / -	2 / 87.678
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.405	- / 44.273	- / -	- / 87.678

Installation												
<i>Modification Item 1 of 1:</i> SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY												
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	-	43.405	44.273	-	87.678

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 5 / SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY

Modification Item 1 of 1: SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates						Nov 2019	Nov 2020
Delivery Dates						Nov 2021	Nov 2022

Installation Information

Method of Implementation: [none specified]:: Installation Name: SA106 VIRGINIA CLASS LARGE VERTICAL ARRAY

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	1 / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	1 / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / -	2 / -

Installation Schedule

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 6 / SA303 688/688I TECHNOLOGY INSERTION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	13.274	-	13.274	55.808	64.904	55.562	11.974	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	13.274	-	13.274	55.808	64.904	55.562	11.974	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	13.274	-	13.274	55.808	64.904	55.562	11.974	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 6 / SA303 688/688I TECHNOLOGY INSERTION KITS			
Models of Systems Affected: SSN				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS</i>													
B Kits													
Non-Recurring													
1.1.1) SA303 688i TECHNOLOGY INSERTION KITS - NonOrganic ⁽⁴⁾	- / -	- / -	6 / -	- / -	- / -	- / -	7 / 55.808	6 / 48.792	5 / 41.475	- / -	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 55.808	- / 48.792	- / 41.475	- / -	Continuing	Continuing	
<i>Subtotal: SA303 688/688I TECHNOLOGY INSERTION KITS</i>	- / -	- / -	6 / -	- / -	- / -	- / -	7 / 55.808	6 / 48.792	5 / 41.475	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 55.808	- / 48.792	- / 41.475	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS</i>	- / 0.000	- / -	- / -	- / 13.274	- / -	- / 13.274	- / -	- / 16.112	- / 14.087	- / 11.974	- / -	- / 55.447	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 13.274	- / -	- / 13.274	- / -	- / 16.112	- / 14.087	- / 11.974	- / -	- / 55.447	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	13.274	-	13.274	55.808	64.904	55.562	11.974	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 6 / SA303 688/688I TECHNOLOGY INSERTION KITS

Modification Item 1 of 1: SA303 688/688I TECHNOLOGY INSERTION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016		Apr 2018	Apr 2019	Apr 2020	
Delivery Dates		Apr 2017		Apr 2019	Apr 2020	Apr 2021	

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 688i TECHNOLOGY INSERTION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	6 / 13.274	- / -	6 / 13.274	- / -	- / -	- / -	- / -	- / -	6 / 13.274
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 16.112	- / -	- / -	- / -	7 / 16.112
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 14.087	- / -	- / -	6 / 14.087
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 11.974	- / -	5 / 11.974
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	6 / 13.274	- / -	6 / 13.274	- / -	7 / 16.112	6 / 14.087	5 / 11.974	- / -	24 / 55.447

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	4	3	-	-	3	3	-	-	3	2	-	24
Out	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	4	3	-	-	3	3	-	-	3	2	-	24	

Footnotes:

(4) Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 7 / SA303 SSGN TECH INSERTION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	16.262	21.281	4.788	-	42.331
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	16.262	21.281	4.788	-	42.331
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	16.262	21.281	4.788	-	42.331
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technology insertion upgrade kits to previously installed A-RCI systems, providing the latest and most current capability and includes tech insertion to Legacy Replacement components on SSGN class submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 7 / SA303 SSGN TECH INSERTION KITS

Models of Systems Affected: SSN	Modification Type: SHIPALT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> SA303 SSGN TECH INSERTION KITS												
B Kits												
Non-Recurring												
1.1.1) SSGN TECH INSERTION KITS - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 16.262	2 / 16.587	- / -	- / -	4 / 32.849
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.262	- / 16.587	- / -	- / -	- / 32.849
<i>Subtotal: SA303 SSGN TECH INSERTION KITS</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 16.262	2 / 16.587	- / -	- / -	4 / 32.849
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.262	- / 16.587	- / -	- / -	- / 32.849
Installation												
<i>Modification Item 1 of 1:</i> SA303 SSGN TECH INSERTION KITS	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.694	- / 4.788	- / -	- / 9.482
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.694	- / 4.788	- / -	- / 9.482
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	16.262	21.281	4.788	-	42.331

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 7 / SA303 SSGN TECH INSERTION KITS

Modification Item 1 of 1: SA303 SSGN TECH INSERTION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates					Apr 2019	Apr 2020	
Delivery Dates					Apr 2020	Apr 2021	

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SSGN TECH INSERTION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.694	- / -	- / -	2 / 4.694
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.788	- / -	2 / 4.788
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.694	2 / 4.788	- / -	4 / 9.482

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	4
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	4

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment			Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	12.037	-	12.037	12.278	3.415	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	12.037	-	12.037	12.278	3.415	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	12.037	-	12.037	12.278	3.415	-	-	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Inserts Tech Insertions onto Seawolf Class Submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>													
B Kits													
Recurring													
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS - NonOrganic ⁽⁶⁾	- / -	- / -	1 / -	1 / 8.755	- / -	1 / 8.755	1 / 8.930	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 8.755	- / -	- / 8.755	- / 8.930	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>	- / -	- / -	1 / -	1 / 8.755	- / -	1 / 8.755	1 / 8.930	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 8.755	- / -	- / 8.755	- / 8.930	- / -	- / -	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS</i>	- / 0.000	- / -	- / -	- / 3.282	- / -	- / 3.282	- / 3.348	- / 3.415	- / -	- / -	- / -	- / 10.045	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 3.282	- / -	- / 3.282	- / 3.348	- / 3.415	- / -	- / -	- / -	- / 10.045	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	12.037	-	12.037	12.278	3.415	-	-	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 8 / SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017	Apr 2018			
Delivery Dates		Apr 2017	Apr 2018	Apr 2019			

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES SSN 21 TI KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	- / -	- / -	- / -	- / -	- / -	1 / 3.282
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.348	- / -	- / -	- / -	- / -	1 / 3.348
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.415	- / -	- / -	- / -	1 / 3.415
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	1 / 3.348	1 / 3.415	- / -	- / -	- / -	3 / 10.045

Installation Schedule

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

Footnotes:
⁽⁵⁾ Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 9 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	16.957	-	16.957	3.348	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	16.957	-	16.957	3.348	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	16.957	-	16.957	3.348	-	-	-	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

[SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS] Provides initial technology insertion upgrade for A-RCI installed systems on the VA Class, providing the latest and most current capability.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment						Modification Number / Title: 9 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS													
B Kits													
Recurring													
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS - NonOrganic ⁽⁶⁾	- / -	- / -	1 / -	1 / 13.675	- / -	1 / 13.675	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 13.675	- / -	- / 13.675	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS</i>	- / -	- / -	1 / -	1 / 13.675	- / -	1 / 13.675	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 13.675	- / -	- / 13.675	- / -	- / -	- / -	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS	- / 0.000	- / -	- / -	- / 13.282	- / -	- / 13.282	- / 13.348	- / -	- / -	- / -	- / -	- / 16.630	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 13.282	- / -	- / 13.282	- / 13.348	- / -	- / -	- / -	- / -	- / 16.630	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	16.957	-	16.957	3.348	-	-	-	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 9 / SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Manufacturer Information							
Manufacturer Name: Lockheed Martin				Manufacturer Location: Syracuse, NY			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017				
Delivery Dates		Apr 2017	Apr 2018				

Installation Information
Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES VA CONVERSION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	- / -	- / -	- / -	- / -	- / -	1 / 3.282
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.348	- / -	- / -	- / -	- / -	1 / 3.348
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	1 / 3.348	- / -	- / -	- / -	- / -	2 / 6.630

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

Footnotes:
⁽⁶⁾ Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment				Modification Number / Title: 10 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	38.300	-	38.300	40.182	10.245	55.743	116.081	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	38.300	-	38.300	40.182	10.245	55.743	116.081	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	38.300	-	38.300	40.182	10.245	55.743	116.081	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.

[SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS] Provides technology insertion upgrade kits to previously A-RCI installed systems on the VA Class, providing the latest and most current capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 10 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS</i>													
B Kits													
Recurring													
1.1.1) SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS - NonOrganic ⁽⁷⁾	- / -	- / -	1 / -	4 / 35.018	- / -	4 / 35.018	3 / 26.790	- / -	6 / 55.743	10 / 94.763	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 35.018	- / -	- / 35.018	- / 26.790	- / -	- / 55.743	- / 94.763	Continuing	Continuing	
<i>Subtotal: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS</i>	- / -	- / -	1 / -	4 / 35.018	- / -	4 / 35.018	3 / 26.790	- / -	6 / 55.743	10 / 94.763	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 35.018	- / -	- / 35.018	- / 26.790	- / -	- / 55.743	- / 94.763	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 3.282	- / -	- / 3.282	- / 13.392	- / 10.245	- / -	- / 21.318	- / -	- / 48.237	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	38.300	-	38.300	40.182	10.245	55.743	116.081	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 10 / SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Modification Item 1 of 1: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017	Apr 2018		Apr 2020	Apr 2021
Delivery Dates		Apr 2017	Apr 2018	Apr 2019		Apr 2021	Apr 2022

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 COTS SUPPORTABILITY UPGRADES VA NON-CONVERSION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	- / -	- / -	- / -	- / -	- / -	1 / 3.282
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 13.392	- / -	- / -	- / -	- / -	4 / 13.392
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 10.245	- / -	- / -	- / -	3 / 10.245
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 21.318	- / -	6 / 21.318
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 3.282	- / -	1 / 3.282	4 / 13.392	3 / 10.245	- / -	6 / 21.318	- / -	14 / 48.237

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	2	-	-	3	-	-	-	-	-	-	-	3	3	-	14
Out	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	2	-	-	3	-	-	-	-	-	-	-	3	3	-	14

Footnotes:

(7) Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 11 / SA303 SSBN CONVERSION
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	24.009	-	24.009	28.667	23.757	25.478	19.010	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	24.009	-	24.009	28.667	23.757	25.478	19.010	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	24.009	-	24.009	28.667	23.757	25.478	19.010	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides sonar modernization to the SSBN (TRIDENT) Class Submarine Fleet.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment					Modification Number / Title: 11 / SA303 SSBN CONVERSION			
Models of Systems Affected: SSN ACOUSTICS				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SA303 SSBN CONVERSION</i>													
B Kits													
Non-Recurring													
1.1.1) SA303 SSBN CONVERSION - NonOrganic ⁽⁶⁾	- / -	- / -	2 / -	3 / 15.815	- / -	3 / 15.815	3 / 16.130	2 / 10.969	3 / 16.782	1 / 5.706	Continuing	Continuing	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / 15.815	- / -	- / 15.815	- / 16.130	- / 10.969	- / 16.782	- / 5.706	Continuing	Continuing	
<i>Subtotal: SA303 SSBN CONVERSION</i>	- / -	- / -	2 / -	3 / 15.815	- / -	3 / 15.815	3 / 16.130	2 / 10.969	3 / 16.782	1 / 5.706	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 15.815	- / -	- / 15.815	- / 16.130	- / 10.969	- / 16.782	- / 5.706	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: SA303 SSBN CONVERSION</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 8.194	- / -	- / 8.194	- / 12.537	- / 12.788	- / 8.696	- / 13.304	- / -	- / 55.519	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	24.009	-	24.009	28.667	23.757	25.478	19.010	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2150 / SSN Acoustic Equipment	Modification Number / Title: 11 / SA303 SSBN CONVERSION

Modification Item 1 of 1: SA303 SSBN CONVERSION

Manufacturer Information

Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021
Delivery Dates		Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022

Installation Information

Method of Implementation: SHIPALT:: Installation Name: SA303 SSBN CONVERSION

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 8.194	- / -	2 / 8.194	- / -	- / -	- / -	- / -	- / -	2 / 8.194
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	3 / 12.537	- / -	- / -	- / -	- / -	3 / 12.537
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 12.788	- / -	- / -	- / -	3 / 12.788
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 8.696	- / -	- / -	2 / 8.696
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 13.304	- / -	3 / 13.304
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	1 / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 8.194	- / -	2 / 8.194	3 / 12.537	3 / 12.788	2 / 8.696	3 / 13.304	1 / -	14 / 55.519

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	-	-	2	1	-	-	2	-	-	-	2	1	1	14
Out	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	-	-	2	1	-	-	2	-	-	-	2	1	1	14

Footnotes:

⁽⁸⁾ Due to BLI 2147 and BLI 2181 merging into BLI 2150, FY16 procurements are reflected in the BLI 2147 exhibit with the associated FY17 installation reflected in this BLI 2150 exhibit.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603512N, 0604518N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	167.398	4.663	7.331	7.163	-	7.163	8.956	6.239	7.630	7.166	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	167.398	4.663	7.331	7.163	-	7.163	8.956	6.239	7.630	7.166	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	167.398	4.663	7.331	7.163	-	7.163	8.956	6.239	7.630	7.166	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.088	0.052	-	-	-	-	-	-	-	-	0.140
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

VM201- ACOUSTIC COMMUNICATIONS (ACOMMS) AND DEPTH SOUNDERS:

Acoustic Communications provides one-way and two-way acoustic communications equipment for submarines and surface ships; Depth Sounders provide a means of measuring the depth of water below the face of a hull mounted transducer. The equipment consists of: (1) AN/WQC-2/2A, a stand-alone, single side-band, general purpose, voice, continuous wave, multiple tone communication for surface ships, submarines, and shore activities; (2) AN/WQC-6, which provides long range coded signaling from surface Anti-Submarine Warfare (ASW) ships to attack submarines when interfaced with the AN/SQS-53 and AN/BQQ-5; (3) AN/BQC-1, a stand-alone emergency voice and signal beacon for submarines; (4) AN/UQN-4/4A, a water depth measuring system that provides the distance between the ship keel and the ocean bottom; and (5) technical improvements (Engineering Changes (ECs)) to Acoustic Communication and Depth Sounder equipment. Funding will provide for continued procurement of both Probe Alert (AN/WQC-6) improvements and AN/WQC-2A and AN/UQN-4/4A ECs, plus associated production engineering support and consulting services for the SSN 21, SSN 688, SSN 774, SSBN 726, SSGN 726, DDG 51, CG 47, MCM 1, FFG 7, AS, LHA, LHD, LPD, LSD, and CVN 68 class ships and submarines.

VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC):

The AN/SQQ-34 Aircraft Carrier Tactical Support Center (CV-TSC) program provides increased situational awareness to the Carrier Strike Group (CSG) in support of force protection, primarily in the area of Anti-Submarine Warfare (ASW). Through the integration of off-board sensors and signal, data and display processors, the AN/SQQ-34 is utilized in detecting, classifying, and localizing threats. An integrated element of the Carrier Combat System, the AN/SQQ-34 supports the tactical deployment of embarked ASW and Surface Warfare (SUW) assets. The program provides technical refreshes to legacy AN/SQQ-34 systems on all Carriers and shore sites in support of Fleet introduction and shipboard integration of the MH-60R Multi-Mission Helicopter. Upgrades to legacy systems will enable exchange of sensor, tactical and imagery data with the MH-60R initially and eventually with P-8 and Triton Unmanned Aircraft Systems (UAS) aircraft. It completes the Kill Chain by linking sensor platform to sensor controllers and the ASW/SUW commanders. In order to support multiple MH-60R Multi-Mission Helicopters, the Common Data Link (CDL) will also be upgraded. CDL is the Navy Aircraft Carrier ultra wide-band, digital, secure data link, comprised of radio equipment that provides configuration-controlled and standardized wide-band, digital, and secure communication paths between multiple reconnaissance sensors and their users. Initially, a single User Interface Group (UIG) upgrade to CDL will be fielded in concert with CV-TSC/MH-60R deployments, providing a single MH-60R/aircraft link.

VM401 - SURFACE SONAR WINDOWS AND DOMES:

AN/SQS-26/53 Sonar Dome Rubber Windows (SDRW) are installed on CG47 and DDG51 class ships. This program provides emergency replacement, wire-reinforced, pressurized rubber acoustic windows and attachment hardware, which experience failure due to corrosion, fatigue, and impact in the splice region. The SDRW significantly improves the surface ship sonar performance by reducing flow-induced self-noise and by providing increased source level receiving and sensitivity resulting from reduced attenuation. This program provides production engineering in support of technical evaluations, failure analysis, implementation of the in-water one-side backscatter X-ray program, Government Furnished Equipment (GFE) refurbishments, and field service engineering; and complete engineering design work and material

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars		P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603512N, 0604518N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>tests. This program also provides drawings, configuration management information, new design and fabrication technology, incorporation of lessons learned and required testing, and construct sub-element to confirm single-stage cure.</p> <p>VM601 - UNDERSEA WARFARE-DECISION SUPPORT SYSTEM (USW-DSS): The USW-DSS program provides an integrated, near-real time, net-centric Anti-Submarine Warfare (ASW) Command and Control (C2) capability across multiple surface platforms and critical shore sites and is capable even with low bandwidth or intermittent inter-platform communications. USW-DSS will provide a critical C2 capability for the Sea Combat (SCC), Theater USW (TUSWC), and Anti-Submarine Warfare (ASWC) Commanders. It will provide the Fleet with improved capability to plan and conduct USW operations and enable alignment of sensors for exploitation of the environment, allocation of resources, optimization of operations and risk, and vulnerability. These factors contribute to increased lethality and survivability through improved asset allocation, optimized sensor placement and situational awareness. This capability will provide USW Commanders with an expanded net-centric USW toolset reaching across all Carrier Strike Group (CSG) platforms (CVNs, CG/DDGs, and IUSS) as well as supporting shore nodes and theater assets including Theater Surface Combatants (TSC), Training, Naval Oceanographic Processing Facility (NOPF), and Commander Task Force (CTF). Funding identified provides for the procurement and installation of USW-DSS capability on CSG platforms and supporting shore nodes via permanent ship alterations (SHIPALTs). Beginning in FY 2009, USW-DSS initiated transition to a software application hosted on afloat platforms' shipboard network, the Integrated Shipboard Network System (ISNS) initially, followed by Consolidated Afloat Network and Enterprise Services (CANES). Workstation procurement is required to support the ISNS and CANES configured ships. The program is included in the Littoral and Maritime Operations Mission Capability Package (MCP) under the Joint Command and Control (JC2) construct. USW-DSS capability improvement utilizes a spiral development process to manage and deliver software improvements to the warfighter. The current Fleet fielded software is Build 2 Release 3, with software Build 3 anticipated to be Fleet introduced in FY 2019.</p>		

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars

P-1 Line Item Number / Title:
2176 / Undersea Warfare Support Equipment

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603512N, 0604518N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Undersea Warfare Support Equipment	P-5a		- / 93.242	- / 4.364	- / 6.995	- / 6.848	- / -	- / 6.848
P-3a	1 / VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS (Added Capability)			- / 74.156	- / 0.299	- / 0.336	- / 0.315	- / -	- / 0.315
P-40	Total Gross/Weapon System Cost			- / 167.398	- / 4.663	- / 7.331	- / 7.163	- / -	- / 7.163

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Undersea Warfare Support Equipment	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS (Added Capability)			- / 0.336	- / 0.340	- / 0.348	- / 0.355	- / -	- / 76.485
P-40	Total Gross/Weapon System Cost			- / 8.956	- / 6.239	- / 7.630	- / 7.166	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:
 VM201 - ACOUSTIC COMMUNICATIONS (ACOMMS) AND DEPTH SOUNDERS: Effective FY 2017, a reprioritization of requirements eliminates all outyear funding.

 VM401 - SURFACE SONAR WINDOWS AND DOMES: Effective FY 2016, SDRW procurements are reduced from three (3) to one (1) per year based on current Fleet replacement requirements and existing inventory.

 VM601 - UNDERSEA WARFARE-DECISION SUPPORT SYSTEM (USW-DSS): Effective FY 2017, USW-DSS Software Build 2 Release 3 capabilities will be improved to keep pace with the increased capabilities of the existing Programs of Record data sources that feed USW-DSS. These improvements will become USW-DSS Build 3.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2						P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment						Aggregated Items Title: Undersea Warfare Support Equipment								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) VM201 - ACOUSTIC COMMUNICATIONS (ACOMMS) AND DEPTH SOUNDERS																				
1.1) Acoustic Communications and Depth Sounders			-	-	2.751	-	-	0.344	-	-	0.357	-	-	-	-	-	-	-	-	-
1.2) Production Support			-	-	1.174	-	-	0.089	-	-	0.092	-	-	-	-	-	-	-	-	-
Subtotal: 1) VM201 - ACOUSTIC COMMUNICATIONS (ACOMMS) AND DEPTH SOUNDERS			-	-	3.925	-	-	0.433	-	-	0.449	-	-	-	-	-	-	-	-	-
2) VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)																				
2.1) VM301 - CV-TSC AN/SQQ-34 Upgrade for CVN 68 ⁽¹⁾	A		-	-	6.475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) VM301 - AIRCRAFT CARRIER TACTICAL SUPPORT CENTER (CV-TSC)			-	-	6.475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3) VM401 - SURFACE SONAR WINDOWS AND DOMES																				
3.1) Surface Sonar Windows and Domes ^{(2)(t)}	A		2,942K	10	29.418	-	-	-	2,197K	1	2.197	2,219K	1	2.219	-	-	-	2,219K	1	2.219
3.2) Sonar Composite Mold			-	-	2.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3) Sonar Composite Dome	A		3,993K	2	7.986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.4) Production Support			-	-	10.343	-	-	0.342	-	-	0.482	-	-	0.166	-	-	-	-	-	0.166
Subtotal: 3) VM401 - SURFACE SONAR WINDOWS AND DOMES			-	-	49.747	-	-	0.342	-	-	2.679	-	-	2.385	-	-	-	-	-	-
4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)																				
4.1) Carrier Strike Group (CSG) Shipsets ⁽³⁾	A		11,812K	1	11.812	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2) Backfit To Post-OPEVAL ^{(4)(t)}	A		-	-	-	-	-	-	20,000.00	26	0.520	21,000.00	17	0.357	-	-	-	21,000.00	17	0.357
4.3) ISNS to CANES S/W Shipsets ^{(5)(t)}	A		0.00	19	0.000	-	-	-	65,000.00	7	0.455	65,000.00	2	0.130	-	-	-	65,000.00	2	0.130
4.4) Shore Sites and Tactical Trainers ^{(6)(t)}	A		-	-	3.645	-	-	-	-	-	-	445,000.00	2	0.890	-	-	-	445,000.00	2	0.890
4.5) Engineering Changes ⁽⁷⁾			-	-	2.304	-	-	1.798	-	-	0.921	-	-	0.843	-	-	-	-	-	0.843
4.6) System Technical Support ⁽⁸⁾			-	-	3.644	-	-	1.487	-	-	1.076	-	-	0.766	-	-	-	-	-	0.766

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment	Aggregated Items Title: Undersea Warfare Support Equipment
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Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
4.7) Production Support ⁽⁹⁾			-	-	9.572	-	-	0.304	-	-	0.367	-	-	0.321	-	-	-	-	-	0.321
4.8) CANES S/W Shipset ^{(10)(†)}	A		111,473.68	19	2.118	-	-	-	66,000.00	8	0.528	68,000.00	17	1.156	-	-	-	68,000.00	17	1.156
Subtotal: 4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)			-	-	33.095	-	-	3.589	-	-	3.867	-	-	4.463	-	-	-	-	-	4.463
Total			-	-	93.242	-	-	4.364	-	-	6.995	-	-	6.848	-	-	-	-	-	6.848

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

(†) indicates the presence of a P-5a

Footnotes:

- (1) VM301 - CV-TSC AN/SQQ-34 Upgrade for CVN 68: Funding identified provides for the procurement of Aircraft Carrier Tactical Support Center (CV-TSC) AN/SQQ-34C with MH-60R capability for those CVNs with legacy CV-TSC systems (AN/SQQ-34A or AN/SQQ-34B). The AN/SQQ-34C upgrade is required to fully exploit, process, fuse and distribute MH-60R in-flight Anti-Submarine Warfare (ASW) and Surface Warfare (SUW) sensor data as well as provide post-mission analysis. FY 2014 provides funding to upgrade the last CVN that does not have MH-60R capability, CVN 68, to the AN/SQQ-34C configuration to support the MH-60R squadron.
- (2) VM401 - Surface Sonar Windows and Domes/Surface Sonar Windows and Domes: Procure SDRWs, shipping fixtures, and fairing angles for emergency replacement on CG 47 and DDG 51 class hulls. Beginning in FY16, SDRW procurements are reduced from three (3) to one (1) per year based on current Fleet replacement requirements and existing inventory.
- (3) VM601 - USW-DSS/Carrier Strike Group (CSG) Shipsets: Consists of the complete USW-DSS rack (hardware, software and supporting equipment).
- (4) VM601 - USW-DSS/Backfit To Post-OPEVAL: Consists of updates to existing USW-DSS Build 2 Release 3 systems in the Fleet with changes dictated by the FY13 OPEVAL of USW-DSS Build 2 Release 3. Beginning in FY19, USW-DSS Build 3 will become the primary backfit software.
- (5) VM601 - USW-DSS/ISNS/CANES S/W Shipsets: Consists of UWS-DSS Build 2 Release 3 software load onto ISNS/CANES platforms. Include updates from ISNS to CANES as well as new CANES S/W & workstations suites. Schedule is dependent upon/coordinated with ISNS/CANES fielding.
- (6) VM601 - USW-DSS/Shore Sites and Tactical Trainers: Consists of USW-DSS post-OPEVAL Build 2 Release 3 shore/lab assets and Tactical Training Equipment systems, which are full hardware/software suites. Beginning in FY19 USW-DSS Build 3 will be loaded on all training and shore site nodes.
- (7) VM601 - USW-DSS/Engineering Changes: Consists of Engineering Change Proposals (ECPs) and hardware/software changes/upgrades. Funding will be used to support Reliability, Maintainability, and Availability (RM&A) modifications, correct deficiencies identified through Fleet use, and upgrade of unreliable components.
- (8) VM601 - USW-DSS/System Technical Support: Funding is for the USW-DSS program Software Support Activity efforts in performing the following functions: generation/assessment of Software Problem Reports (SPRs)/Software Trouble Reports (STRs); responding to Fleet software Change Requests (CR); Configuration Management (CM); software Quality Assurance (QA); software installation automation; and software recovery support.
- (9) VM601 - USW-DSS/Production Support: Consists of on-site engineering support; CANES Integrated Product Team (IPT) Support; Information Assurance (IA) certification support; production quality assurance; System Sustainability Support; Integrated Logistics Support (ILS) product updates/support; status reporting and technical briefings; program office support; and all other production support efforts directly related to delivery of USW-DSS to both ISNS/CANES and ultimately the Fleet.
- (10) VM601 - CANES S/W Shipsets: Consists of initial loads of the post-OPEVAL USW-DSS Build 2 Release 3 software suite on new CANES ships, which includes changes dictated by the FY13 OPEVAL of USW-DSS Build 2 Release 3. Schedule is dependent on/coordinated with CANES fielding. Prior Years reflect ISNS software shipsets. Beginning in FY19, Build 3 will replace Build 2 Release 3.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment	Aggregated Items: Undersea Warfare Support Equipment
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
3) VM401 - SURFACE SONAR WINDOWS AND DOMES												
3.1) Surface Sonar Windows and Domes ⁽²⁾		2016	UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL	SS / FP	NAVEA	Jan 2016	Jan 2017	1	2,197K	Y		
3.1) Surface Sonar Windows and Domes ⁽²⁾		2017	UTC Aerospace Systems (formerly Goodrich) / Jacksonville, FL	SS / FP	NAVSEA	Jan 2017	Jan 2018	1	2,219K	Y		
4) VM601 - UNDERSEA WARFARE DECISION SUPPORT SYSTEM (USW-DSS)												
4.2) Backfit To Post-OPEVAL ⁽⁴⁾		2016	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Nov 2015	Feb 2016	26	20,000.00	Y		
4.2) Backfit To Post-OPEVAL ⁽⁴⁾		2017	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Nov 2016	Feb 2017	17	21,000.00	Y		
4.3) ISNS to CANES S/W Shipsets ⁽⁵⁾		2016	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Nov 2015	Feb 2016	7	65,000.00	Y		
4.3) ISNS to CANES S/W Shipsets ⁽⁵⁾		2017	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Nov 2016	Feb 2017	2	65,000.00	Y		
4.4) Shore Sites and Tactical Trainers ⁽⁶⁾		2017	Progeny Systems, Corporation / Manassas, VA	C / CPFF	NAVSEA	Jan 2017	Apr 2017	2	445,000.00	Y		
4.8) CANES S/W Shipset ⁽¹⁰⁾		2016	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Nov 2015	Feb 2016	8	66,000.00	Y		
4.8) CANES S/W Shipset ⁽¹⁰⁾		2017	NUWC/Keyport / Keyport, WA	WR	NAVSEA	Oct 2016	Jan 2017	17	68,000.00	Y		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2				P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment				Modification Number / Title: 1 / VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	74.156	0.299	0.336	0.315	-	0.315	0.336	0.340	0.348	0.355	-	76.485
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	74.156	0.299	0.336	0.315	-	0.315	0.336	0.340	0.348	0.355	-	76.485
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	74.156	0.299	0.336	0.315	-	0.315	0.336	0.340	0.348	0.355	-	76.485
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SQQ-34C MH-60R MISSION INTEGRATION WITH CDL MODIFICATIONS] To accommodate MH-60R upgrades on the Aircraft Carrier, the existing Common Data Link System (CDLS) requires an equipment upgrade that provides an additional User Interface Group (UIG) connection to the Aircraft Carrier Tactical Support Center (CV-TSC) and an additional link to support pre-flight verification of systems. As a result of a cost-savings measure and a new initiative by N2N6 to introduce a new multi-link common data link program to the Aircraft Carrier in FY 2015, the current CDLS upgrade is being limited to the additional UIG and pre-flight verification equipment which is being installed as part of the CV-TSC equipment upgrades.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2					P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment					Modification Number / Title: 1 / VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS				
Models of Systems Affected: [No Model Specified]			Modification Type: Added Capability					Related RDT&E PEs: 0603512N						
Financial Plan	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		
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)		
Procurement														
<i>Modification Item 1 of 1: VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS</i>														
B Kits														
Recurring														
1.1.1) AN/SQQ-34C MH-60R MISSION INTEGRATION WITH CDL MODIFICATIONS - NonOrganic	8 / 28.142	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 28.142		
<i>Subtotal: Recurring</i>	- / 28.142	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.142		
Non-Recurring														
1.2.1) AN/SQQ-34C MH-60R Mission Integration - Lab/ Shore Site Systems - Organic	- / 3.395	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.395		
<i>Subtotal: Non-Recurring</i>	- / 3.395	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.395		
<i>Subtotal: VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS</i>	8 / 31.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 31.537		
<i>Subtotal: Procurement, All Modification Items</i>	- / 31.537	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.537		
Support (All Modification Items)														
2.1) Technology Insert/Refresh & ECP Implementation ⁽¹¹⁾	- / 9.881	- / 0.299	- / 0.336	- / 0.315	- / -	- / 0.315	- / 0.336	- / 0.340	- / 0.348	- / 0.355	- / -	- / 12.210		
2.2) Production Engineering/Support	- / 11.586	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.586		
<i>Subtotal: Support</i>	- / 21.467	- / 0.299	- / 0.336	- / 0.315	- / -	- / 0.315	- / 0.336	- / 0.340	- / 0.348	- / 0.355	- / -	- / 23.796		
Installation														
<i>Modification Item 1 of 1: VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS</i>	- / 21.152	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.152		
<i>Subtotal: Installation</i>	- / 21.152	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.152		
Total														
Total Cost (Procurement + Support + Installation)	74.156	0.299	0.336	0.315	-	0.315	0.336	0.340	0.348	0.355	-	76.485		

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2176 / Undersea Warfare Support Equipment	Modification Number / Title: 1 / VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS

Modification Item 1 of 1: VM301 - AN/SQQ-34C MH-60R MISSION INTEGRATION W/ CDL MODIFICATIONS

Installation Information

Method of Implementation: SHIPYARD & AIT:: Installation Name: AN/SQQ-34C MH-60R MISSION INTEGRATION WITH CDL MODIFICATIONS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 21.152	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 21.152
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 21.152	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 21.152

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

Footnotes:

(11) VM301 - Technology Insert/Refresh & ECP Implementation: Funding used to implement Engineering Change Proposals (ECPs) addressing obsolescence, performance, or information assurance issues.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers
---	---

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
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	110.565	11.621	11.781	-	-	-	-	-	-	-	-	133.967
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	110.565	11.621	11.781	-	-	-	-	-	-	-	-	133.967
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	110.565	11.621	11.781	-	-	-	-	-	-	-	-	133.967

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.672	0.517	-	-	-	-	-	-	-	-	1.189
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

*Note - In FY17 and out, BLI's 2147 and 2181 have been consolidated into BLI 2150. This exhibit reflects FY15-16 and the data continues on under BLI 2150 for FY17-21.

This program procures hydrophones, transducers, cables, associated Out-Board Electronics bottles (OBE), and acoustic windows for In-Service Undersea Warfare Sonars on all classes of submarines. The components are required to support units in the fleet on a replacement basis, at regularly scheduled ship overhauls, and at interim availabilities when units are defective, and for upgrades.

[P40A / PU100 SONAR SWITCHES AND TRANSDUCERS]: Included in this line are procurements of transducers, hydrophones, windows, cables, Out-Board Electronics (OBE), domes and their associated mounting hardware, and other support equipment and materials for the following Undersea Warfare Sonars: BSY-1, BSY-2, BQQ-5, BQQ-6, BQQ-10, BQG-5, BQS-15, BQS-14A, WQC-2, WLR-9/12, BQN-13, BQN-17, BQA-8, BQH-1 and BQS-25.

[P40A / PU200 ENGINEERING CHANGES]: Funds ECPs, Value Engineering awards, and hardware changes affecting the SSN 688, 688I, SEAWOLF, SSBN 726 (TRIDENT), SSGN/SSBN, and VA Class submarines.

[P40A / PU300 PROGRAM SUPPORT]: Supports the procurement of equipment of sonar hydrophones, transducers, cables, Out-Board Electronics (OBEs), and acoustic windows for In-Service Undersea Warfare Sonars.

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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 02: Communications & Electronics Equip / BSA 2: Ship Sonars	P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Sonar Switches and Transducers	P-5a		- / 110.565	- / 11.621	- / 11.781	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 110.565	- / 11.621	- / 11.781	- / -	- / -	- / -

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2181 / Sonar Switches and Transducers **Aggregated Items Title:** Sonar Switches and Transducers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) PU100 SONAR SWITCHES AND TRANSDUCERS ⁽¹⁾																				
1.1) TR-353 ^(†)	A		6,000.00	200	1.200	6,000.00	100	0.600	6,120.00	100	0.612	-	-	-	-	-	-	-	-	
1.2) CW-1147 DOME ^(†)	A		18,000.00	20	0.360	18,000.00	10	0.180	18,360.00	10	0.184	-	-	-	-	-	-	-	-	
1.3) CW-1181E DOME ^(†)	A		5,000.00	37	0.185	5,000.00	18	0.090	5,100.00	18	0.092	-	-	-	-	-	-	-	-	
1.4) DT-574 100FT ^(†)	A		2,000.00	100	0.200	2,000.00	100	0.200	2,040.00	100	0.204	-	-	-	-	-	-	-	-	
1.5) MX-12309 SSGN HFSA WINDOW ^(†)	A		173,000.00	1	0.173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.6) CABLES	A		-	-	2.275	-	-	0.816	-	-	0.703	-	-	-	-	-	-	-	-	
1.7) DT-574 50FT ^(†)	A		533.33	90	0.048	550.46	327	0.180	561.47	300	0.168	-	-	-	-	-	-	-	-	
1.8) CW-1181C ^(†)	A		5,432.58	178	0.967	5,000.00	20	0.100	5,100.00	20	0.102	-	-	-	-	-	-	-	-	
1.9) MX-10624 ^(†)	A		7,047.62	105	0.740	13,400.00	10	0.134	13,668.00	10	0.137	-	-	-	-	-	-	-	-	
1.10) MX-12062 HFSA 688i Window ^(†)	A		159,400.00	10	1.594	171,000.00	1	0.171	-	-	-	-	-	-	-	-	-	-	-	
1.11) MX-11474 SEAWOLF HFSA Window ^(†)	A		187,166.67	6	1.123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.12) DT-5740 LSA OBE ^(†)	A		14,605.26	228	3.330	16,346.15	26	0.425	16,673.07	26	0.433	-	-	-	-	-	-	-	-	
1.13) DT-511 Hydrophone ^(†)	A		23,169.81	53	1.228	28,266.67	15	0.424	28,832.00	15	0.432	-	-	-	-	-	-	-	-	
1.14) DT-592 Hydrophone ^(†)	A		32,946.67	75	2.471	-	-	-	40,535.82	18	0.730	-	-	-	-	-	-	-	-	
1.15) TR-233 Transducer ^(†)	A		10,153.56	267	2.711	10,000.00	20	0.200	10,200.00	20	0.204	-	-	-	-	-	-	-	-	
1.16) TR-282 Transducer ^(†)	A		22,271.43	70	1.559	27,363.64	11	0.301	27,910.91	7	0.195	-	-	-	-	-	-	-	-	
1.17) TR-302 Transducer ^(†)	A		23,075.95	237	5.469	22,428.57	21	0.471	22,877.14	18	0.412	-	-	-	-	-	-	-	-	
1.18) TR-302 Window ^(†)	A		893.33	75	0.067	1,000.00	10	0.010	1,020.00	10	0.010	-	-	-	-	-	-	-	-	
1.19) TR-321 Transducer	A		7,463.64	110	0.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.20) TR-321 V CTD ^(†)	A		21,663.37	202	4.376	18,318.18	22	0.403	18,684.54	22	0.411	-	-	-	-	-	-	-	-	
1.21) TR-338 Transducer ^(†)	A		21,607.76	232	5.013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2181 / Sonar Switches and Transducers **Aggregated Items Title:** Sonar Switches and Transducers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1.22) TR-341 Transducer ^(†)	A		16,587.82	427	7.083	-	-	-	18,000.00	20	0.360	-	-	-	-	-	-	-	-	-
1.23) WAA OBE ^(†)	A		8,886.36	220	1.955	12,000.00	50	0.600	12,240.00	50	0.612	-	-	-	-	-	-	-	-	-
1.24) NCC CONNECTORS ^(†)	A		933.85	2,812	2.626	1,000.00	54	0.054	1,020.00	52	0.053	-	-	-	-	-	-	-	-	-
1.25) DT-699 HFSA RECEIVE ^(†)	A		59,472.53	91	5.412	71,000.00	6	0.426	72,420.00	6	0.435	-	-	-	-	-	-	-	-	-
1.26) TR-364 HFSP XMIT ^(†)	A		129,133.33	15	1.937	155,523.97	1	0.156	158,634.45	1	0.159	-	-	-	-	-	-	-	-	-
1.27) TR-317 ^(†)	A		3,303.13	9,999	33.028	4,000.00	681	2.724	4,080.00	650	2.652	-	-	-	-	-	-	-	-	-
1.28) TR-281 ^(†)	A		20,648.65	37	0.764	-	-	-	22,870.22	6	0.137	-	-	-	-	-	-	-	-	-
1.29) DT-592 Hydrophone First Article ^(†)	A		-	-	-	130,000.00	3	0.390	-	-	-	-	-	-	-	-	-	-	-	-
1.30) TR-233 Transducer First Article ^(†)	A		100,000.00	3	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.32) TR-321 Transducer First Article ^(†)	A		-	-	-	-	-	-	125,000.00	2	0.250	-	-	-	-	-	-	-	-	-
1.33) TR-338 Transducer First Article ^(†)	A		-	-	-	-	-	-	125,000.00	2	0.250	-	-	-	-	-	-	-	-	-
1.34) TR-341 Transducer First Article ^(†)	A		-	-	-	100,000.00	3	0.300	-	-	-	-	-	-	-	-	-	-	-	-
1.35) TR-317 FIRST ARTICLE	A		81,750.00	4	0.327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.36) TR-353 FIRST ARTICLE	A		81,750.00	4	0.327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.37) TR-281 FIRST ARTICLE ^(†)	A		-	-	-	100,000.00	3	0.300	-	-	-	-	-	-	-	-	-	-	-	-
1.38) DT-513 Hydrophone ^(†)	A		3,435.60	854	2.934	4,203.35	120	0.504	4,287.42	82	0.352	-	-	-	-	-	-	-	-	-
1.39) DT-574 50FT FIRST ARTICLE ^(†)	A		35,000.00	6	0.210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.40) DT-574 100FT FIRST ARTICLE ^(†)	A		35,000.00	6	0.210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.41) DT-100 HFSA RECEIVE ^(†)	A		75,000.00	3	0.225	75,000.00	3	0.225	76,500.00	3	0.230	-	-	-	-	-	-	-	-	-

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2 **P-1 Line Item Number / Title:** 2181 / Sonar Switches and Transducers **Aggregated Items Title:** Sonar Switches and Transducers

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Subtotal: 1) PU100 SONAR SWITCHES AND TRANSDUCERS			-	-	93.248	-	-	10.384	-	-	10.519	-	-	-	-	-	-	-	-	
2) PU200 ENGINEERING CHANGES																				
2.1) ENGINEERING CHANGES	A		-	-	1.745	-	-	0.206	-	-	0.210	-	-	-	-	-	-	-	-	
Subtotal: 2) PU200 ENGINEERING CHANGES			-	-	1.745	-	-	0.206	-	-	0.210	-	-	-	-	-	-	-	-	
3) PU300 PROGRAM SUPPORT																				
3.1) PROGRAM SUPPORT	A		-	-	15.572	-	-	1.031	-	-	1.052	-	-	-	-	-	-	-	-	
Subtotal: 3) PU300 PROGRAM SUPPORT			-	-	15.572	-	-	1.031	-	-	1.052	-	-	-	-	-	-	-	-	
Total			-	-	110.565	-	-	11.621	-	-	11.781	-	-	-	-	-	-	-	-	

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

(†) indicates the presence of a P-5a

Footnotes:

(1) Due to Fleet usage requirements to maintain submarines in an operational status, adjustments are made to quantities throughout the FYDP. Items not procured in a single year do not impact the production line.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2			P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers					Aggregated Items: Sonar Switches and Transducers				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) PU100 SONAR SWITCHES AND TRANSDUCERS												
1.1) TR-353		2013	ULTRA / Braintree, MA	C / FP	NUWC	Jun 2013	Jun 2014	100	6,000.00	Y		
1.1) TR-353		2014	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2014	Mar 2015	100	6,000.00	Y		
1.1) TR-353		2015	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2015	Mar 2016	100	6,000.00	Y		
1.1) TR-353		2016	UNKNOWN / TBD	TBD	NUWC	Mar 2016	Mar 2016	100	6,120.00	Y		
1.2) CW-1147 DOME		2013	NUWC Newport / RI	Various	NUWC	Aug 2013	Aug 2014	10	18,000.00	Y		
1.2) CW-1147 DOME		2014	NUWC Newport / RI	Various	NUWC	Aug 2014	Aug 2015	10	18,000.00	Y		
1.2) CW-1147 DOME		2015	NUWC Newport / RI	C / FP	NUWC	Mar 2015	Mar 2016	10	18,000.00	Y		
1.2) CW-1147 DOME		2016	NUWC Newport / RI	C / FP	NUWC	Mar 2016	Mar 2017	10	18,360.00	Y		
1.3) CW-1181E DOME		2013	NUWC Newport / RI	Various	NUWC	Mar 2013	Mar 2014	19	5,000.00	Y		
1.3) CW-1181E DOME		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	18	5,000.00	Y		
1.3) CW-1181E DOME		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	18	5,000.00	Y		
1.3) CW-1181E DOME		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	18	5,100.00	Y		
1.4) DT-574 100FT		2013	Massa / Hingham, MA	C / FP	NUWC	Jul 2013	Jul 2014	100	2,000.00	Y		
1.4) DT-574 100FT		2015	Massa / Hingham, MA	C / FP	NUWC	Mar 2015	Mar 2016	100	2,000.00	Y		
1.4) DT-574 100FT		2016	Unknown / TBD	C / TBD	NUWC	Mar 2016	Mar 2017	100	2,040.00	Y		
1.5) MX-12309 SSGN HFSA WINDOW		2013	NUWC Newport / RI	Various	NUWC	Aug 2013	Aug 2014	1	173,000.00	Y		
1.7) DT-574 50FT		2013	NUWC NPT / NEWPORT, RI	C / FP	NUWC	May 2013	May 2014	90	533.33	Y		
1.7) DT-574 50FT		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	327	550.46	Y		
1.7) DT-574 50FT		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	300	561.47	Y		
1.8) CW-1181C		2012	Globe Composites / Rockland, MA	WR	NUWC	Mar 2012	Mar 2013	18	5,000.00	Y		
1.8) CW-1181C		2013	NUWC Newport / RI	Various	NUWC	Mar 2013	Mar 2014	16	5,000.00	Y		
1.8) CW-1181C		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	18	5,000.00	Y		
1.8) CW-1181C		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	20	5,000.00	Y		
1.8) CW-1181C		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	20	5,100.00	Y		
1.9) MX-10624		2012	NUWC NPT / NEWPORT, RI	Various	NUWC	Aug 2012	Aug 2013	4	13,000.00	Y		
1.9) MX-10624		2014	NUWC NPT / NEWPORT, RI	Various	NUWC	Aug 2014	Aug 2015	11	13,181.82	Y		
1.9) MX-10624		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	10	13,400.00	Y		
1.9) MX-10624		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	10	13,668.00	Y		
1.10) MX-12062 HFSA 688i Window		2012	Goodrich / Jacksonville, FL	C / FP	NUWC	Mar 2012	Mar 2013	2	169,000.00	Y		
1.10) MX-12062 HFSA 688i Window		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	1	171,000.00	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2			P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers					Aggregated Items: Sonar Switches and Transducers				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.11) MX-11474 SEAWOLF HFSA Window		2012	NUWC Newport / RI	Various	NUWC	Aug 2012	Aug 2013	2	191,000.00	Y		
1.11) MX-11474 SEAWOLF HFSA Window		2014	NUWC Newport / RI	Various	NUWC	Jul 2014	Jul 2015	1	197,000.00	Y		
1.12) DT-5740 LSA OBE		2012	SyQwest / Warwick, RI	C / FP	NUWC	Apr 2012	Apr 2013	20	16,000.00	Y		
1.12) DT-5740 LSA OBE		2013	SyQwest / Warwick, RI	C / FP	NUWC	Aug 2013	Aug 2014	10	16,000.00	Y		
1.12) DT-5740 LSA OBE		2014	SyQwest / Warwick, RI	C / FP	NUWC	May 2014	May 2015	25	16,272.00	Y		
1.12) DT-5740 LSA OBE		2015	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2015	Mar 2016	26	16,346.15	Y		
1.12) DT-5740 LSA OBE		2016	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2016	Mar 2017	26	16,673.07	Y		
1.13) DT-511 Hydrophone		2013	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Aug 2013	Aug 2014	10	27,400.00	Y		
1.13) DT-511 Hydrophone		2014	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	May 2014	May 2015	18	27,797.66	Y		
1.13) DT-511 Hydrophone		2015	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Mar 2015	Mar 2016	15	28,266.67	Y		
1.13) DT-511 Hydrophone		2016	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Mar 2016	Mar 2017	15	28,832.00	Y		
1.14) DT-592 Hydrophone		2012	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Sep 2012	Sep 2013	5	39,000.00	Y		
1.14) DT-592 Hydrophone		2014	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Sep 2014	Sep 2015	18	39,000.00	Y		
1.14) DT-592 Hydrophone		2016	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Oct 2015	Oct 2016	18	40,535.82	Y		
1.15) TR-233 Transducer		2012	Harris Corporation / Walpole, MA	C / FP	NUWC	Mar 2012	Mar 2013	60	9,000.00	Y		
1.15) TR-233 Transducer		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	20	10,000.00	Y		
1.15) TR-233 Transducer		2016	NUWC NPT / NEWPORT, RI	TBD	NUWC	Mar 2016	Mar 2017	20	10,200.00	Y		
1.16) TR-282 Transducer		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	10	26,900.00	Y		
1.16) TR-282 Transducer		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	11	27,363.64	Y		
1.16) TR-282 Transducer		2016	NUWC NPT / NEWPORT, RI	TBD	NUWC	Mar 2016	Mar 2017	7	27,910.91	Y		
1.17) TR-302 Transducer		2012	ITT Excelis / Salt Lake City, UT	C / FP	NUWC	Mar 2012	Mar 2013	42	21,357.14	Y		
1.17) TR-302 Transducer		2013	NUWC NPT / NEWPORT, RI	Various	NUWC	Sep 2013	Sep 2013	20	21,698.71	Y		
1.17) TR-302 Transducer		2014	NUWC NPT / NEWPORT, RI	Various	NUWC	May 2014	May 2014	18	22,067.59	Y		
1.17) TR-302 Transducer		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2015	21	22,428.57	Y		
1.17) TR-302 Transducer		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2016	18	22,877.14	Y		
1.18) TR-302 Window		2012	NUWC Newport / RI	Various	NUWC	Mar 2012	Mar 2013	19	1,000.00	Y		
1.18) TR-302 Window		2013	NUWC Newport / RI	Various	NUWC	Mar 2013	Mar 2014	6	1,000.00	Y		
1.18) TR-302 Window		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	10	1,000.00	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2			P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers					Aggregated Items: Sonar Switches and Transducers				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.18) TR-302 Window		2015	NUWC Newport / RI	Various	NUWC	Mar 2015	Mar 2016	10	1,000.00	Y		
1.18) TR-302 Window		2016	NUWC Newport / RI	Various	NUWC	Mar 2016	Mar 2017	10	1,020.00	Y		
1.20) TR-321 V CTD		2014	Teledyne RD Instruments / Poway, CA	C / FP	NUWC	Mar 2014	Mar 2015	20	18,000.00	Y		
1.20) TR-321 V CTD		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	22	18,318.18	Y		
1.20) TR-321 V CTD		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	22	18,684.54	Y		
1.21) TR-338 Transducer		2012	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	May 2012	May 2013	24	22,000.00	Y		
1.21) TR-338 Transducer		2013	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Sep 2013	Sep 2014	20	23,000.00	Y		
1.21) TR-338 Transducer		2014	Channel Technologies / Santa Barbara, CA	C / FP	NUWC	Mar 2014	Mar 2015	18	23,000.00	Y		
1.22) TR-341 Transducer		2012	NUWC Newport / RI	Various	NUWC	Mar 2012	Mar 2013	47	17,000.00	Y		
1.22) TR-341 Transducer		2016	UNKNOWN / TBD	TBD	NUWC	Mar 2016	Mar 2017	20	18,000.00	Y		
1.23) WAA OBE		2013	SyQwest / Warwick, RI	C / FP	NUWC	Aug 2013	Aug 2014	50	12,000.00	Y		
1.23) WAA OBE		2014	SyQwest / Warwick, RI	C / FP	NUWC	May 2014	May 2015	50	12,000.00	Y		
1.23) WAA OBE		2015	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2015	Mar 2016	50	12,000.00	Y		
1.23) WAA OBE		2016	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2016	Mar 2017	50	12,240.00	Y		
1.24) NCC CONNECTORS		2012	Various / Various	C / FP	NUWC	Mar 2012	Mar 2013	442	1,000.00	Y		
1.24) NCC CONNECTORS		2013	Various / Various	C / FP	NUWC	Apr 2013	Apr 2014	45	1,000.00	Y		
1.24) NCC CONNECTORS		2014	Various / Various	C / FP	NUWC	May 2014	May 2015	52	1,000.00	Y		
1.24) NCC CONNECTORS		2015	Various / Various	C / FP	NUWC	Mar 2015	Mar 2016	54	1,000.00	Y		
1.24) NCC CONNECTORS		2016	Various / Various	C / FP	NUWC	Mar 2016	Mar 2017	52	1,020.00	Y		
1.25) DT-699 HFSA RECEIVE		2012	SyQwest / Warwick, RI	C / FP	NUWC	Apr 2012	Apr 2013	17	69,350.00	Y		
1.25) DT-699 HFSA RECEIVE		2014	SyQwest / Warwick, RI	C / FP	NUWC	May 2014	May 2015	7	70,000.00	Y		
1.25) DT-699 HFSA RECEIVE		2015	TRF / Portsmouth, MA	C / FP	NUWC	Mar 2015	Mar 2016	6	71,000.00	Y		
1.25) DT-699 HFSA RECEIVE		2016	Unknown / TBD	TBD	NUWC	Mar 2016	Mar 2017	6	72,420.00	Y		
1.26) TR-364 HFSP XMIT		2012	NUWC Newport / RI	Various	NUWC	Aug 2012	Aug 2013	1	148,000.00	Y		
1.26) TR-364 HFSP XMIT		2013	NUWC Newport / RI	Various	NUWC	Aug 2013	Aug 2014	1	150,368.00	Y		
1.26) TR-364 HFSP XMIT		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	1	152,924.26	Y		
1.26) TR-364 HFSP XMIT		2015	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2015	Mar 2016	1	155,523.97	Y		
1.26) TR-364 HFSP XMIT		2016	NUWC NPT / NEWPORT, RI	Various	NUWC	Mar 2016	Mar 2017	1	158,634.45	Y		
1.27) TR-317		2012	ULTRA / Braintree, MA	C / FP	NUWC	Jun 2012	Jun 2013	1,110	4,000.00	Y		
1.27) TR-317		2013	ULTRA / Braintree, MA	C / FP	NUWC	Dec 2012	Dec 2013	1,095	4,000.91	Y		
1.27) TR-317		2014	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2014	Mar 2015	1,050	4,001.90	Y		
1.27) TR-317		2015	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2015	Mar 2016	681	4,000.00	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 2	P-1 Line Item Number / Title: 2181 / Sonar Switches and Transducers	Aggregated Items: Sonar Switches and Transducers
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.27) TR-317		2016	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2016	Mar 2017	650	4,080.00	Y		
1.28) TR-281		2012	NUWC Newport / RI	Various	NUWC	Aug 2012	Aug 2013	10	21,400.00	Y		
1.28) TR-281		2016	SyQwest / Warwick, RI	TBD	NUWC	Aug 2016	Aug 2017	6	22,870.22	Y		
1.29) DT-592 Hydrophone First Article		2015	Channel Technologies / Santa Barbara, CA	Various	NUWC	Mar 2015	Mar 2016	3	130,000.00	Y		
1.30) TR-233 Transducer First Article		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	3	100,000.00	Y		
1.32) TR-321 Transducer First Article		2016	UNKNOWN / TBD	TBD	NUWC	Mar 2016	Mar 2018	2	125,000.00	Y		
1.33) TR-338 Transducer First Article		2016	UNKNOWN / TBD	TBD	NUWC	Mar 2016	Mar 2017	2	125,000.00	Y		
1.34) TR-341 Transducer First Article		2015	SyQwest / Warwick, RI	Various	NUWC	Mar 2015	Mar 2016	3	100,000.00	Y		
1.37) TR-281 FIRST ARTICLE		2015	SyQwest / Warwick, RI	Various	NUWC	Mar 2015	Mar 2016	3	100,000.00	Y		
1.38) DT-513 Hydrophone		2012	ULTRA / Braintree, MA	C / FP	NUWC	Mar 2012	Mar 2013	127	4,000.00	Y		
1.38) DT-513 Hydrophone		2013	SyQwest / Warwick, RI	C / FP	NUWC	Sep 2013	Sep 2014	104	4,067.31	Y		
1.38) DT-513 Hydrophone		2014	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2014	Mar 2015	110	4,133.09	Y		
1.38) DT-513 Hydrophone		2015	SyQwest / Warwick, RI	C / FP	NUWC	Mar 2015	Mar 2016	120	4,203.35	Y		
1.38) DT-513 Hydrophone		2016	Unknown / TBD	TBD	NUWC	Mar 2016	Mar 2017	82	4,287.42	Y		
1.39) DT-574 50FT FIRST ARTICLE		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	6	35,000.00	Y		
1.40) DT-574 100FT FIRST ARTICLE		2014	NUWC Newport / RI	Various	NUWC	Mar 2014	Mar 2015	6	35,000.00	Y		
1.41) DT-100 HFSA RECEIVE		2014	TRF / Portsmouth, MA	C / FP	NUWC	Mar 2014	Mar 2015	3	75,000.00	Y		
1.41) DT-100 HFSA RECEIVE		2015	TRF / Portsmouth, MA	C / FP	NUWC	Mar 2015	Mar 2016	3	75,000.00	Y		
1.41) DT-100 HFSA RECEIVE		2016	Unknown / TBD	TBD	NUWC	Mar 2016	Mar 2017	3	76,500.00	Y		

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	79.872	22.721	19.718	21.291	-	21.291	22.263	24.076	26.212	26.722	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	79.872	22.721	19.718	21.291	-	21.291	22.263	24.076	26.212	26.722	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	79.872	22.721	19.718	21.291	-	21.291	22.263	24.076	26.212	26.722	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.251	0.401	0.366	-	0.366	0.510	0.662	0.701	0.715	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Submarine Acoustic Warfare System (SAWS) program provides submarines with expendable defensive countermeasures and the capability to launch them against torpedoes. The countermeasures also reduce the effectiveness of enemy acoustic sensors. This program provides ongoing production of countermeasure devices needed to sustain fleet inventories, production of improvements to enhance the readiness and effectiveness of countermeasure devices, and associated outboard countermeasure launcher systems on all U.S. submarines.

WM018 - ACOUSTIC AUGMENTATION SUPPORT PROGRAM (AASP) procures acoustic augmenting devices in appropriate configurations for all submarine platforms, currently installed as temporary equipment. SHIPALT for VIRGINIA CLASS BLK I-III is developed and will start installations in FY16. Reliability and refresh upgrades sustain current in-service AASP systems with new components and software updates improving reliability. SHIPALT for BLK IV will be developed in FY17 and will start installations in FY19.

WM019 - Countermeasure Set Acoustic (CSA) supports and procures engineering changes in support of SAWS including the Countermeasures Set Acoustic (CSA) system, Torpedo Defense Console (TDC), and Launch Control Panels (LCPs). CSA support system assets correct obsolescence, including engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5. Four efforts are underway. Technical refresh is in the 4th year to design, build, test and certify replacement components for obsolete CSA MK2 Mod 4 on 688i ships and CSA MK2 Mod 0/1 on SSBNs. Upgrades will occur in FY16-FY21. A second effort, "Technical Insertion," is to federate CSA MK3 into SWFTS (Submarine Warfare Federated Tactical Systems) to facilitate the ADC MK5 upon introduction. The third effort will convert CSA MK2 Mod 2 to CSA MK 4 to accommodate the introduction of ADC MK 5 to VIRGINIA CLASS BLK I and II Ships (10). Non recurring engineering will complete in FY17, with installs starting in FY18. The fourth line of effort supports engineering issues across all systems as they arise.

[P40A / WM014 6 INCH]: WM014 6" Diameter Countermeasures - Procures and refreshes the 6" Acoustic Device Countermeasure (ADC) MK3 (Torpedo), ADC MK4 (Sound Navigation and Ranging (SONAR)) and associated 6" Countermeasure Launch Tube and Engineering Change Proposals (ECPs) to correct and improve the devices, and configuration management to maintain fleet inventory levels to meet Naval Munition Requirements Process (NMRP). A Service Life Extension Program (SLEP) was initiated in FY14 for ADC MK3 and MK4.

[P40A / WM015 3 INCH]: WM015 3" Diameter Countermeasures - Procures the 3" device Noise Acoustic Emitter (NAE) BEACON and ADC MK2 MOD 5 and provides for Engineering Change Proposals (ECPs) and configuration control to correct and improve the devices. The Next Generation Countermeasure Program will transition the ADC MK5 into production beyond the FYDP, nominally starting in FY25.

[P40A / WM022 GAS GENERATOR MK77]: WM022 Gas Generator (GG) MK 77 - Procures the energetic components required to launch the ADC MK3 and ADC MK4 countermeasure devices from the External Countermeasure Launchers (ECLs) on the later classes of submarines (688i or newer). MK 77 Mod 0 are reworked for fleet usage.

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment		P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A / WM830 PRODUCTION ENGINEERING]: WM830 Production Engineering - Procures production engineering services for SAWS Technical Design Agent (TDA) and In-Service Engineering Agent (ISEA) across all SAWS systems.</p> <p>[P40A / WM900 CONSULTING SERVICES]: WM900 Consulting Services - Procures contractor support services for SAWS program.</p>		

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment

P-1 Line Item Number / Title:
2210 / Submarine Acoustic Warfare System

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

Line Item MDAP/MAIS Code: N/A **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Acoustic Warfare System	P-5a, P-21		- / 64.921	- / 12.786	- / 11.000	- / 8.573	- / -	- / 8.573
P-3a	1 / AASP WM018 (TBD)			- / 3.018	- / 1.032	- / 1.889	- / 2.843	- / -	- / 2.843
P-3a	2 / CSA WM019 (TBD)			- / 11.933	- / 8.903	- / 6.829	- / 9.875	- / -	- / 9.875
P-40	Total Gross/Weapon System Cost			- / 79.872	- / 22.721	- / 19.718	- / 21.291	- / -	- / 21.291

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Acoustic Warfare System	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AASP WM018 (TBD)			- / 4.168	- / 5.373	- / 4.772	- / 4.862	- / 10.126	- / 38.083
P-3a	2 / CSA WM019 (TBD)			- / 10.719	- / 4.796	- / 5.456	- / 4.716	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 22.263	- / 24.076	- / 26.212	- / 26.722	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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3						P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System						Aggregated Items Title: Submarine Acoustic Warfare System								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) WM014 6 INCH																				
1.1) 6" Countermeasure Launch Tube (1)(t)	A		26,994.22	519	14.010	7,293.58	109	0.795	5,000.00	200	1.000	5,125.00	177	0.907	-	-	-	5,125.00	177	0.907
1.2) ADC MK3 (TORPEDO) NEW (2)(t)	A		31,054.17	480	14.906	33,326.92	52	1.733	-	-	-	37,275.00	32	1.193	-	-	-	37,275.00	32	1.193
1.4) MK 3 ADC SLEP (3)(t)	A		-	-	-	6,022.73	88	0.530	12,000.00	150	1.800	5,090.91	88	0.448	-	-	-	5,090.91	88	0.448
1.6) ADC MK 4 SLEP (4)(t)	A		-	-	-	11,472.22	36	0.413	12,000.00	50	0.600	8,472.00	52	0.441	-	-	-	8,472.00	52	0.441
Subtotal: 1) WM014 6 INCH			-	-	28.916	-	-	3.471	-	-	3.400	-	-	2.989	-	-	-	-	-	2.989
2) WM015 3 INCH																				
2.1) NAE BEACON (5)(t)	A		6,953.59	1,099	7.642	4,445.54	808	3.592	4,900.00	514	2.519	-	-	-	-	-	-	-	-	-
2.3) ADC MK2 MOD3/5/7 (6)(t)	A		5,491.68	1,442	7.919	-	-	-	6,000.00	100	0.600	6,000.00	100	0.600	-	-	-	6,000.00	100	0.600
Subtotal: 2) WM015 3 INCH			-	-	15.561	-	-	3.592	-	-	3.119	-	-	0.600	-	-	-	-	-	0.600
3) WM022 GAS GENERATOR MK77																				
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION (7)(t)	A		10,253.74	1,336	13.699	19,587.00	80	1.567	-	-	-	16,934.01	197	3.336	-	-	-	16,934.01	197	3.336
3.2) Gas Generator MK77 Mod 0 (8)(t)	A		-	-	-	7,266.00	270	1.962	10,911.67	300	3.274	-	-	-	-	-	-	-	-	-
Subtotal: 3) WM022 GAS GENERATOR MK77			-	-	13.699	-	-	3.529	-	-	3.274	-	-	3.336	-	-	-	-	-	3.336
4) WM830 PRODUCTION ENGINEERING																				
4.1) PRODUCTION ENGINEERING	A		-	-	5.754	-	-	1.327	-	-	0.858	-	-	1.188	-	-	-	-	-	1.188
Subtotal: 4) WM830 PRODUCTION ENGINEERING			-	-	5.754	-	-	1.327	-	-	0.858	-	-	1.188	-	-	-	-	-	1.188
5) WM900 CONSULTING SERVICES																				
5.1) CONSULTING SERVICES	A		-	-	0.991	-	-	0.867	-	-	0.349	-	-	0.460	-	-	-	-	-	0.460
Subtotal: 5) WM900 CONSULTING SERVICES			-	-	0.991	-	-	0.867	-	-	0.349	-	-	0.460	-	-	-	-	-	0.460
Total			-	-	64.921	-	-	12.786	-	-	11.000	-	-	8.573	-	-	-	-	-	8.573

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

(t) indicates the presence of a P-5a

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Aggregated Items Title: Submarine Acoustic Warfare System

Footnotes:

- (1) Rework of launch tubes assumed.
- (2) Procures new ADC MK3 Acoustic Device Countermeasures. Assumes new contract for ADC MK 3/4 with launch tubes starting in FY19 with NRE and production orders for new units in FY20. MK3 ADC SLEP broken out from ADC MK3 cost element for clarification of units and unit cost. Ratio of SLEP to new procurement units may vary due to variable SLEP unit cost dependent on unit condition. Available budget will balance new procurement with SLEP rework.
- (3) MK3 ADC SLEP broken out from ADC MK3 cost element for clarification of units and unit cost in FY17 and FY18. FY15 SLEP vs. new actual quantities/prices shown for clarity. FY16 SLEP/new quantities not divided, thus unit cost of \$12K indicates a mix of new and reworked units. SLEP unit rework actual quantities and unit cost may vary based on availability and condition of units to be refreshed. Available budget will balance new procurement with SLEP refresh.
- (4) MK4 ADC SLEP broken out from ADC MK4 cost element for clarification of units and unit cost in FY15 through FY18. SLEP unit refresh/rework actual quantities and unit cost may vary based on availability and condition of units to be refreshed. Ratio of SLEP to new procurement units may vary due to variable SLEP unit cost dependent on unit condition. Available budget will balance new procurement with SLEP refresh. Assumes new unit cost for ADC MK3/4 in FY19 with launch tubes incorporated. NRE cost for startup including First Article Testing is \$7.2 million based on historical expenditure on startup effort.
- (5) FY 2016 Congressional reduction of \$1.401M for NAE beacon contract savings. NAE Beacon contract awarded in May 2014 changed unit cost and that unit cost was used in FY16; FY15 shows actual cost. Assumes follow on contract award in FY19, NRE of \$1.2 million in FY19, then first procurement orders in FY20.
- (6) Reduced quantity in view of inventory level sufficiency. Assumes new contract in FY16 for ADC MK2 MOD 7
- (7) Cost increase of MK77 beginning FY17 is due to reflecting only unit cost increase of MK77 Mod 1 new production. MK77 Mod 1 are processed as wholly new device; obsolete components are not used for this unit. Unit cost includes prorated share of management and engineering oversight. MK77 Mod 1 new production broken out for clarification of units and unit cost in FY15.
- (8) MK77 Mod 0 broken out for clarification of units and unit cost in FY15. In FY16, single unit cost includes prorated share of management and engineering oversight. MK77 Mod 0 are reworked gas generators - reuse of energetics to end of its life.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3			P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System					Aggregated Items: Submarine Acoustic Warfare System				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) WM014 6 INCH												
1.1) 6" Countermeasure Launch Tube (1)(f)		2011	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWCKEYPORT	Aug 2011	Aug 2012	275	11,003.64	Y		
1.1) 6" Countermeasure Launch Tube (1)(f)		2012	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWCKEYPORT	Aug 2012	Aug 2013	169	11,035.50	Y		
1.1) 6" Countermeasure Launch Tube (1)(f)		2014	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWCKEYPORT	Aug 2014	Aug 2015	75	11,560.00	Y		
1.1) 6" Countermeasure Launch Tube (1)(f)		2015	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWCKEYPORT	Aug 2015	Feb 2016	109	7,293.58	Y		
1.1) 6" Countermeasure Launch Tube (1)(f)		2016	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWCKEYPORT	Aug 2016	Feb 2017	200	5,000.00	Y		
1.1) 6" Countermeasure Launch Tube (1)(f)		2017	DYNAMIC FLOWFORM / MASSACHUSETTS	C / FFP	NUWC/KEYPORT	Oct 2016	Apr 2017	177	5,125.00	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2011	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Jun 2011	Jun 2013	125	31,600.00	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2012	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Aug 2012	Aug 2014	160	27,075.00	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2013	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Jun 2013	Jun 2015	125	34,400.00	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2014	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Dec 2013	Dec 2015	70	33,200.00	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2015	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Dec 2014	Dec 2016	52	33,326.92	Y		
1.2) ADC MK3 (TORPEDO) NEW (2)(f)		2017	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Sep 2017	Sep 2019	32	37,275.00	Y		
1.4) MK 3 ADC SLEP (3)(f)		2015	FRC -SW / San Diego, CA	C / FFP	** NO PCO **	Aug 2015	Aug 2015	88	6,022.73	N		
1.4) MK 3 ADC SLEP (3)(f)		2016	FRC -SW / San Diego, CA	C / FFP	** NO PCO **	Apr 2016	Apr 2016	150	12,000.00	N		
1.4) MK 3 ADC SLEP (3)(f)		2017	FRC -SW / San Diego, CA	C / FFP	** NO PCO **	Apr 2017	Apr 2017	88	5,090.91	N		
1.6) ADC MK 4 SLEP (4)(f)		2015	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Sep 2015	Aug 2016	36	11,472.22	Y		
1.6) ADC MK 4 SLEP (4)(f)		2016	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Nov 2015	Oct 2016	50	12,000.00	Y		
1.6) ADC MK 4 SLEP (4)(f)		2017	ULTRA / BRAINTREE, MA	C / FFP	NAVSEA	Nov 2016	Oct 2017	52	8,472.00	Y		
2) WM015 3 INCH												
2.1) NAE BEACON (5)(f)		2011	ULTRA / BRAINTREE, MA	C / FFP	NAVICP	Aug 2011	Jul 2013	429	7,498.83	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Aggregated Items: Submarine Acoustic Warfare System
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1) NAE BEACON ^{(5)(t)}		2014	ULTRA / BRAintree, MA	SS / IDIQ	NAVICP	May 2014	Apr 2016	670	6,604.48	Y		
2.1) NAE BEACON ^{(5)(t)}		2015	ULTRA / BRAintree, MA	SS / IDIQ	NAVICP	Aug 2015	Jul 2017	808	4,445.54	Y		
2.1) NAE BEACON ^{(5)(t)}		2016	ULTRA / BRAintree, MA	SS / IDIQ	NAVICP	May 2016	Apr 2017	514	4,900.00	Y		
2.3) ADC MK2 MOD3/5/7 ^{(6)(t)}		2011	ULTRA / BRAintree, MA	C / FFP	NAVSEA	May 2011	May 2013	354	5,389.83	Y		
2.3) ADC MK2 MOD3/5/7 ^{(6)(t)}		2012	ULTRA / BRAintree, MA	C / FFP	NAVSEA	May 2012	May 2014	808	5,476.49	Y		
2.3) ADC MK2 MOD3/5/7 ^{(6)(t)}		2014	ULTRA / BRAintree, MA	C / FFP	NUWC/KEYPORT	May 2014	May 2016	280	5,664.29	Y		
2.3) ADC MK2 MOD3/5/7 ^{(6)(t)}		2016	TBD / @TBD	C / FFP	NUWC/KEYPORT	May 2016	May 2017	100	6,000.00	Y		
2.3) ADC MK2 MOD3/5/7 ^{(6)(t)}		2017	TBD / @TBD	C / FFP	NUWC/KEYPORT	May 2017	May 2018	100	6,000.00	N		
3) WM022 GAS GENERATOR MK77												
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2011	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2011	Mar 2012	243	10,000.00	Y		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2012	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2012	Mar 2013	400	10,160.00	Y		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2013	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2013	Mar 2014	443	10,334.09	Y		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2014	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2014	Mar 2015	250	10,508.00	Y		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2015	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2015	Mar 2016	80	19,587.00	Y		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ^{(7)(t)}		2017	NSWC/INDIAN HEAD / NSWC INDIAN HEAD	WR	NSWC INDIAN HEAD	Mar 2017	Mar 2018	197	16,934.01	Y		
3.2) Gas Generator MK77 Mod 0 ^{(8)(t)}		2015	NSWC/IH / INDIAN HEAD, MD	WR	** NO PCO **	Mar 2015	Sep 2015	270	7,266.00	Y		
3.2) Gas Generator MK77 Mod 0 ^{(8)(t)}		2016	NSWC/IH / INDIAN HEAD, MD	WR	** NO PCO **	Mar 2016	Sep 2016	300	10,911.67	Y		

^(t) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>						Fiscal Year 2011												Fiscal Year 2012												BALANCE							
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2010	BAL DUE AS OF 1 OCT	Calendar Year 2011												Calendar Year 2012																		
							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						
	6	2014	NAVY	280	-	280																															280
	7	2016	NAVY	100	-	100																														100	
	7	2017	NAVY	100	-	100																														100	
3) WM022 GAS GENERATOR MK77																																					
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ⁽⁷⁾																																					
	8	2011	NAVY	243	-	243																													106		
	8	2012	NAVY	400	-	400																														400	
	8	2013	NAVY	443	-	443																														443	
	8	2014	NAVY	250	-	250																														250	
	8	2015	NAVY	80	-	80																														80	
	8	2017	NAVY	197	-	197																														197	
3.2) Gas Generator MK77 Mod 0 ⁽⁸⁾																																					
	9	2015	NAVY	270	-	270																														270	
	9	2016	NAVY	300	-	300																															300

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>					Fiscal Year 2013												Fiscal Year 2014												BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2012	BAL DUE AS OF 1 OCT	Calendar Year 2013												Calendar Year 2014													
							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) WM014 6 INCH																																
1.1) 6" Countermeasure Launch Tube ⁽¹⁾																																
1		2011	NAVY	275	40	235	25	25	25	25	25	25	25	25	20	15													-			
1		2012	NAVY	169	-	169	-	-	-	-	-	-	-	-	-	-	14	14	14	14	14	14	14	14	14	14	14	15	-			
1		2014	NAVY	75	-	75																						A -	75			
1		2015	NAVY	109	-	109																							109			
1		2016	NAVY	200	-	200																							200			
1		2017	NAVY	177	-	177																							177			
1.2) ADC MK3 (TORPEDO) NEW ⁽²⁾																																
2		2011	NAVY	125	-	125	-	-	-	-	-	-	-	-	11	10	10	10	10	10	10	10	10	10	10	10	10	10	-			
2		2012	NAVY	160	-	160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	14	132		
2		2013	NAVY	125	-	125									A -	-	-	-	-	-	-	-	-	-	-	-	-	-	125			
2		2014	NAVY	70	-	70																							70			
2		2015	NAVY	52	-	52															A -	-	-	-	-	-	-	-	52			
2		2017	NAVY	32	-	32																							32			
1.4) MK 3 ADC SLEP ⁽³⁾																																
3		2015	NAVY	88	-	88																							88			
3		2016	NAVY	150	-	150																							150			
3		2017	NAVY	88	-	88																							88			
1.6) ADC MK 4 SLEP ⁽⁴⁾																																
4		2015	NAVY	36	-	36																							36			
4		2016	NAVY	50	-	50																							50			
4		2017	NAVY	52	-	52																							52			
2) WM015 3 INCH																																
2.1) NAE BEACON ⁽⁵⁾																																
5		2011	NAVY	429	-	429	-	-	-	-	-	-	-	-	-	35	35	35	36	36	36	36	36	36	36	36	36	36	-			
5		2014	NAVY	670	-	670																							670			
5		2015	NAVY	808	-	808																							808			
5		2016	NAVY	514	-	514																							514			
2.3) ADC MK2 MOD3/5/7 ⁽⁶⁾																																
6		2011	NAVY	354	-	354	-	-	-	-	-	-	-	30	30	30	30	30	30	29	29	29	29	29	29	29	29	-				
6		2012	NAVY	808	-	808	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67	67	67	67	67	473
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items (Units in Each)				Fiscal Year 2015														Fiscal Year 2016														BALANCE			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
1) WM014 6 INCH																																			
1.1) 6" Countermeasure Launch Tube (1)																																			
1		2011	NAVY	275	275	-																							-						
1		2012	NAVY	169	169	-																							-						
1		2014	NAVY	75	-	75	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	7	7	7		-						
1		2015	NAVY	109	-	109										A	-	-	-	-	-	-	9	9	9	9	9	9	37						
1		2016	NAVY	200	-	200																					A	-	200						
1		2017	NAVY	177	-	177																						177							
1.2) ADC MK3 (TORPEDO) NEW (2)																																			
2		2011	NAVY	125	125	-																						-							
2		2012	NAVY	160	28	132	14	14	13	13	13	13	13	13	13													-							
2		2013	NAVY	125	-	125	-	-	-	-	-	-	-	-	10	10	10	10	10	10	11	11	11	11	11			-							
2		2014	NAVY	70	-	70	-	-	-	-	-	-	-	-	-	-	-	-	6	6	6	6	6	6	6	6	6	10							
2		2015	NAVY	52	-	52			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52							
2		2017	NAVY	32	-	32																						32							
1.4) MK 3 ADC SLEP (3)																																			
3		2015	NAVY	88	-	88										A8	7	7	7	7	7	7	7	7	7	7	8	8	8	-					
3		2016	NAVY	150	-	150																				A13	13	13	13	13	13	13	72		
3		2017	NAVY	88	-	88																						88							
1.6) ADC MK 4 SLEP (4)																																			
4		2015	NAVY	36	-	36										A	-	-	-	-	-	-	-	-	-	-	-	3	3	30					
4		2016	NAVY	50	-	50													A	-	-	-	-	-	-	-	-	-	-	50					
4		2017	NAVY	52	-	52																						52							
2) WM015 3 INCH																																			
2.1) NAE BEACON (5)																																			
5		2011	NAVY	429	429	-																						-							
5		2014	NAVY	670	-	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	55	56	56	56	56	336			
5		2015	NAVY	808	-	808										A	-	-	-	-	-	-	-	-	-	-	-	-	808						
5		2016	NAVY	514	-	514																				A	-	-	-	-	-	514			
2.3) ADC MK2 MOD3/5/7 (6)																																			
6		2011	NAVY	354	354	-																						-							
6		2012	NAVY	808	335	473	67	67	67	67	67	67	71															-							
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE							
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016																		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P						
	6	2014	NAVY	280	-	280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165
	7	2016	NAVY	100	-	100																														100	
	7	2017	NAVY	100	-	100																														100	
3) WM022 GAS GENERATOR MK77																																					
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ⁽⁷⁾																																					
	8	2011	NAVY	243	243	-																													-		
	8	2012	NAVY	400	400	-																														-	
	8	2013	NAVY	443	258	185	37	37	37	37	37																									-	
	8	2014	NAVY	250	-	250	-	-	-	-	-	20	20	21	21	21	21	21	21	21	21	21	21												-		
	8	2015	NAVY	80	-	80						A	-	-	-	-	-	-	-	-	-	-	-	7	7	7	7	7	7	7	7	7	7	7	31		
	8	2017	NAVY	197	-	197																													197		
3.2) Gas Generator MK77 Mod 0 ⁽⁸⁾																																					
	9	2015	NAVY	270	-	270						A	-	-	-	-	-	-	23	23	23	23	23	23	22	22	22	22	22	22	22	22		-			
	9	2016	NAVY	300	-	300																			A	-	-	-	-	-	-	-	-	25	275		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	A	M	J	J	A	S						
							C	O	E	A	E	A	A	A	U	U	A	E	C	O	V	E	A	E	A	A	U	U	U	U	U	E					
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	U	G	P						

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>					Fiscal Year 2017													Fiscal Year 2018												BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P	
1) WM014 6 INCH																																
1.1) 6" Countermeasure Launch Tube ⁽¹⁾																																
1	2011	NAVY	275	275	-																							-				
1	2012	NAVY	169	169	-																							-				
1	2014	NAVY	75	75	-																							-				
1	2015	NAVY	109	72	37	9	9	9	10																			-				
1	2016	NAVY	200	-	200	-	-	-	-	16	16	16	16	17	17	17	17	17	17	17	17							-				
1	2017	NAVY	177	-	177	A	-	-	-	-	-	14	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15	-				
1.2) ADC MK3 (TORPEDO) NEW ⁽²⁾																																
2	2011	NAVY	125	125	-																							-				
2	2012	NAVY	160	160	-																							-				
2	2013	NAVY	125	125	-																							-				
2	2014	NAVY	70	60	10	5	5																					-				
2	2015	NAVY	52	-	52	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	6	6					-					
2	2017	NAVY	32	-	32																A	-	-	-	-	-	-	32				
1.4) MK 3 ADC SLEP ⁽³⁾																																
3	2015	NAVY	88	88	-																							-				
3	2016	NAVY	150	78	72	12	12	12	12	12	12																	-				
3	2017	NAVY	88	-	88							A7	7	7	7	7	7	7	7	7	8	8	8	8			-					
1.6) ADC MK 4 SLEP ⁽⁴⁾																																
4	2015	NAVY	36	6	30	3	3	3	3	3	3	3	3	3	3													-				
4	2016	NAVY	50	-	50	4	4	4	4	4	4	4	4	4	4	5	5											-				
4	2017	NAVY	52	-	52	A	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	5	5	5	5	-	
2) WM015 3 INCH																																
2.1) NAE BEACON ⁽⁵⁾																																
5	2011	NAVY	429	429	-																							-				
5	2014	NAVY	670	334	336	56	56	56	56	56	56																	-				
5	2015	NAVY	808	-	808	-	-	-	-	-	-	-	-	-	67	67	67	67	67	67	67	67	67	67	67	67	67	-				
5	2016	NAVY	514	-	514	-	-	-	-	-	-	66	66	66	66	67	67	67	67	49								-				
2.3) ADC MK2 MOD3/5/7 ⁽⁶⁾																																
6	2011	NAVY	354	354	-																							-				
6	2012	NAVY	808	808	-																							-				
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2017 Navy																											Date: February 2016							
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3															P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System								Aggregated Items: Submarine Acoustic Warfare System											
Items (Units in Each)					Fiscal Year 2017														Fiscal Year 2018													BALANCE		
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				
	6	2014	NAVY	280	115	165	23	23	23	24	24	24	24															-						
	7	2016	NAVY	100	-	100	-	-	-	-	-	-	-	8	8	8	8	8	8	8	9	9	9	9				-						
	7	2017	NAVY	100	-	100								A -	-	-	-	-	-	-	-	-	-	8	8	8	8	8	60					
3) WM022 GAS GENERATOR MK77																																		
3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ⁽⁷⁾																																		
	8	2011	NAVY	243	243	-																						-						
	8	2012	NAVY	400	400	-																						-						
	8	2013	NAVY	443	443	-																						-						
	8	2014	NAVY	250	250	-																						-						
	8	2015	NAVY	80	49	31	7	6	6	6	6																-							
	8	2017	NAVY	197	-	197								A -	-	-	-	-	-	-	-	-	-	16	16	16	16	16	16	85				
3.2) Gas Generator MK77 Mod 0 ⁽⁸⁾																																		
	9	2015	NAVY	270	270	-																						-						
	9	2016	NAVY	300	25	275	25	25	25	25	25	25	25	25	25	25	25											-						
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P				

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2210 / Submarine Acoustic Warfare System **Aggregated Items:** Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>					Fiscal Year 2019													Fiscal Year 2020													BALANCE		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
1) WM014 6 INCH																																	
1.1) 6" Countermeasure Launch Tube ⁽¹⁾																																	
	1	2011	NAVY	275	275	-																							-				
	1	2012	NAVY	169	169	-																							-				
	1	2014	NAVY	75	75	-																							-				
	1	2015	NAVY	109	109	-																							-				
	1	2016	NAVY	200	200	-																							-				
	1	2017	NAVY	177	177	-																							-				
1.2) ADC MK3 (TORPEDO) NEW ⁽²⁾																																	
	2	2011	NAVY	125	125	-																							-				
	2	2012	NAVY	160	160	-																							-				
	2	2013	NAVY	125	125	-																							-				
	2	2014	NAVY	70	70	-																							-				
	2	2015	NAVY	52	52	-																							-				
	2	2017	NAVY	32	-	32	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	2	2	2	2	-		
1.4) MK 3 ADC SLEP ⁽³⁾																																	
	3	2015	NAVY	88	88	-																							-				
	3	2016	NAVY	150	150	-																							-				
	3	2017	NAVY	88	88	-																							-				
1.6) ADC MK 4 SLEP ⁽⁴⁾																																	
	4	2015	NAVY	36	36	-																							-				
	4	2016	NAVY	50	50	-																							-				
	4	2017	NAVY	52	52	-																							-				
2) WM015 3 INCH																																	
2.1) NAE BEACON ⁽⁵⁾																																	
	5	2011	NAVY	429	429	-																							-				
	5	2014	NAVY	670	670	-																							-				
	5	2015	NAVY	808	808	-																							-				
	5	2016	NAVY	514	514	-																							-				
2.3) ADC MK2 MOD3/5/7 ⁽⁶⁾																																	
	6	2011	NAVY	354	354	-																							-				
	6	2012	NAVY	808	808	-																							-				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3		P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System
		Aggregated Items: Submarine Acoustic Warfare System

Items <i>(Units in Each)</i>					Fiscal Year 2019									Fiscal Year 2020												BALANCE											
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019									Calendar Year 2020																					
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R		M A Y	J U N	J U L	A U G	S E P						
	6	2014	NAVY	280	280	-																															-
	7	2016	NAVY	100	100	-																															-
	7	2017	NAVY	100	40	60	8	8	8	9	9	9	9																							-	

3) WM022 GAS GENERATOR MK77

3.1) GAS GENERATOR MK77 MOD 1 NEW PRODUCTION ⁽⁷⁾

O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	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	BALANCE						
	8	2011	NAVY	243	243	-																														-	
	8	2012	NAVY	400	400	-																															-
	8	2013	NAVY	443	443	-																															-
	8	2014	NAVY	250	250	-																															-
	8	2015	NAVY	80	80	-																															-
	8	2017	NAVY	197	112	85	17	17	17	17	17																									-	

3.2) Gas Generator MK77 Mod 0 ⁽⁸⁾

O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	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	BALANCE							
	9	2015	NAVY	270	270	-																															-	
	9	2016	NAVY	300	300	-																																-

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Aggregated Items: Submarine Acoustic Warfare System
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	DYNAMIC FLOWFORM - MASSACHUSETTS	120	360	720	-	-	-	-	-	10	6	16
2	ULTRA - BRAintree, MA	192	288	576	-	-	-	-	7	2	12	14
3	FRC -SW - San Diego, CA	-	-	-	-	-	-	-	-	-	-	-
4	ULTRA - BRAintree, MA	192	288	576	8	2	11	13	8	2	11	13
5	ULTRA - BRAintree, MA	840	1,440	2,880	-	-	-	-	5	3	11	14
6	ULTRA - BRAintree, MA	840	1,440	2,880	-	1	-	1	-	1	12	13
7	TBD - @TBD	-	-	-	-	1	-	1	-	1	12	13
8	NSWC/INDIAN HEAD - NSWC INDIAN HEAD	48	480	960	-	-	-	-	6	5	6	11
9	NSWC/IH - INDIAN HEAD, MD	48	480	960	-	-	-	-	-	5	6	11

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System						Modification Number / Title: 1 / AASP WM018		

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	3.018	1.032	1.889	2.843	-	2.843	4.168	5.373	4.772	4.862	10.126	38.083
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	3.018	1.032	1.889	2.843	-	2.843	4.168	5.373	4.772	4.862	10.126	38.083
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	3.018	1.032	1.889	2.843	-	2.843	4.168	5.373	4.772	4.862	10.126	38.083

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

WM018 ACOUSTIC AUGMENTATION SUPPORT PROGRAM (AASP) procures acoustic augmenting devices in appropriate configurations for all submarine platforms, currently installed as temporary equipment. SHIPALT for VIRGINIA CLASS BLK I-III is developed and will start installations in FY16. Reliability and refurbishment upgrades sustain current in-service AASP systems with new components and software updates improving reliability. SHIPALT for VIRGINIA CLASS BLK IV will be developed in FY17 and will start installations in FY19.

[WM018 AASP Support] Includes production support for BLK I-IV SHIPALTS and the AASP reliability and refurbishment upgrade.

[WM018 AASP (Acoustic Augmentation Support Program)] AASP includes costs of procuring new systems and reuse of available components, including the HLF-1, for SHIPALT installation such that "unit cost" is a mix of new and used components. An additional HLF-1 transducer (not a complete full system) is procured in FY17 (\$587K) and FY19 (\$610K).

[WM018 AASP Reliability and Refurbishment Upgrade] Reliability and refurbishment upgrade to sustain current in-service AASP systems.

[WM018 AASP (Acoustic Augmentation Support Program)] Non-recurring costs to produce AASP SHIPALT Package.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System					Modification Number / Title: 1 / AASP WM018			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AASP WM018</i>													
B Kits													
Recurring													
1.1.1) WM018 AASP Support - Organic ⁽⁹⁾	- / -	- / -	- / 0.165	- / 0.274	- / -	- / 0.274	- / 0.175	- / 0.181	- / 0.323	- / 0.217	- / 0.678	- / 2.013	
1.1.2) WM018 AASP (Acoustic Augmentation Support Program) - NonOrganic ⁽¹⁰⁾	- / -	- / -	1 / 0.864	1 / 0.879	- / -	1 / 0.879	2 / 2.698	4 / 3.360	3 / 2.802	3 / 2.856	5 / 4.879	19 / 18.338	
1.1.3) WM018 AASP Reliability and Refurbishment Upgrade - NonOrganic ⁽¹¹⁾	- / -	1 / 0.100	1 / 0.102	- / -	- / -	- / -	1 / 0.106	2 / 0.216	- / -	1 / 0.112	2 / 0.228	8 / 0.864	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.100	- / 1.131	- / 1.153	- / -	- / 1.153	- / 2.979	- / 3.757	- / 3.125	- / 3.185	- / 5.785	- / 21.215	
Non-Recurring													
1.2.1) WM018 AASP (Acoustic Augmentation Support Program) - Organic	- / 3.018	- / 0.932	- / -	- / 1.300	- / -	- / 1.300	- / -	- / -	- / -	- / -	- / -	- / 15.250	
<i>Subtotal: Non-Recurring</i>	- / 3.018	- / 0.932	- / -	- / 1.300	- / -	- / 1.300	- / -	- / -	- / -	- / -	- / -	- / 15.250	
<i>Subtotal: AASP WM018</i>	- / 3.018	1 / 1.032	2 / 1.131	1 / 2.453	- / -	1 / 2.453	3 / 2.979	6 / 3.757	3 / 3.125	4 / 3.185	7 / 5.785	27 / 26.465	
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.018	- / 1.032	- / 1.131	- / 2.453	- / -	- / 2.453	- / 2.979	- / 3.757	- / 3.125	- / 3.185	- / 5.785	- / 26.465	
Installation													
<i>Modification Item 1 of 1: AASP WM018</i>	- / 0.000	- / -	- / 0.758	- / 0.390	- / -	- / 0.390	- / 1.189	- / 1.616	- / 1.647	- / 1.677	- / 4.341	- / 11.618	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.758	- / 0.390	- / -	- / 0.390	- / 1.189	- / 1.616	- / 1.647	- / 1.677	- / 4.341	- / 11.618	
Total													
Total Cost (Procurement + Support + Installation)	3.018	1.032	1.889	2.843	-	2.843	4.168	5.373	4.772	4.862	10.126	38.083	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 1 / AASP WM018
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Modification Item 1 of 1: AASP WM018

Manufacturer Information

Manufacturer Name: HydroAcoustics, Inc	Manufacturer Location: Henritta, NY
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 10

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates	Sep 2015	Nov 2016	Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021

Manufacturer Name: NUWC Newport	Manufacturer Location: Newport, Rhode Island
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Apr 2016		Dec 2017	Oct 2018		Oct 2020
Delivery Dates	Jul 2015	Jul 2016		Mar 2018	Jan 2019		Jan 2021

Installation Information

Method of Implementation: AIT:: Installation Name: WM018 AASP (Acoustic Augmentation Support Program)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 0.390	- / -	1 / 0.390	- / -	- / -	- / -	- / -	- / -	1 / 0.390
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.791	- / -	- / -	- / -	- / -	2 / 0.791
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.806	- / -	- / -	- / -	2 / 0.806
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.647	- / -	- / -	4 / 1.647
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.257	- / -	3 / 1.257
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.283	3 / 1.283
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.195	5 / 2.195
Total	- / -	- / -	- / -	1 / 0.390	- / -	1 / 0.390	2 / 0.791	2 / 0.806	4 / 1.647	3 / 1.257	8 / 3.478	20 / 8.369

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	1	1	-	-	2	1	-	1	2	1	-	-	8	20
Out	-	-	-	-	-	-	-	-	-	-	1	-	-	-	2	-	-	1	1	-	-	2	1	-	1	2	1	-	-	8	20

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 1 / AASP WM018

Modification Item 1 of 1: AASP WM018

Installation Information

Method of Implementation: AIT:: Installation Name: WM018 AASP Reliability and Refurbishment Upgrade

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	1 / 0.375	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.375
FY 2016	- / -	- / -	1 / 0.383	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.383
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.398	- / -	- / -	- / -	- / -	1 / 0.398
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.810	- / -	- / -	- / -	2 / 0.810
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.420	- / -	1 / 0.420
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.863	2 / 0.863
Total	- / -	- / -	2 / 0.758	- / -	- / -	- / -	1 / 0.398	2 / 0.810	- / -	1 / 0.420	2 / 0.863	8 / 3.249

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	1	-	-	2	8
Out	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	1	-	-	2	8

Footnotes:

- (9) Includes production support for SHIPALT 4678. FY17 and FY20 have no availabilities for the reliability and refurbishment upgrade. Funding was placed in the AASP support line for FY17 and FY20.
- (10) An additional HLF-1 transducer is procured in FY17 (\$587K) and FY19 (\$610K) which increases the unit cost per system. Deleted additional FY17 HLF-1 due to BBA 17 and deferred to outside FYDP.
- (11) FY17 and FY20 there are no availabilities to install the reliability and refurbishment upgrades. Funding was placed in AASP support in FY17 to support preparations for HLF-1 transducer procurements and in FY20 to support additional government acceptance testing.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 2 / CSA WM019
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	11.933	8.903	6.829	9.875	-	9.875	10.719	4.796	5.456	4.716	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	11.933	8.903	6.829	9.875	-	9.875	10.719	4.796	5.456	4.716	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	11.933	8.903	6.829	9.875	-	9.875	10.719	4.796	5.456	4.716	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

WM019 - Countermeasure Set Acoustic (CSA) supports and procures engineering changes in support of SAWS. Four efforts are underway. Technical refresh is in the 4th year to design, build, test and certify replacement components for obsolete CSA MK2 Mod 4 on 688i ships and CSA MK2 Mod 0/1 on SSBNs. Upgrades will occur in FY16-FY20. A second effort, "Technical Insertion," is to federate CSA MK3 into SWFTS (Submarine Warfare Federated Tactical Systems) to facilitate the ADC MK5 upon introduction. The third effort will convert CSA MK2 Mod 2 to CSA MK 4 to accommodate the introduction of ADC MK 5 to Virginia Class Block 1 and 2 Ships (10). Non recurring engineering will complete in FY17, with installs starting in FY18. The fourth effort supports engineering issues across all systems as they arise.

[WM019 CSA MK3 Engineering Changes (LAN, SWFTS, TDA)] Supports and procures engineering changes in support of SAWS including the Countermeasures Set Acoustic (CSA) system, Torpedo Defense Console (TDC), and Launch Control Panels (LCPs). This supports changes to correct obsolescence, including engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5.

[WM019 CSA MK2 MOD 0 OBSOLESCENCE] Technical refresh designs, builds, tests and certifies replacement components for obsolete CSA MK2 Mod 4 on 688i ships. Upgrades will occur in FY16-FY20.

[WM019 CSAMK2 MOD2 CONVERSION to CSA MK4] Converts CSA MK2 Mod 2 to CSA MK 4 to accommodate introduction of ADC MK 5 to Virginia Class Block 1 and 2 Ships (10). Proofing will complete in FY17, with changeover starting in FY18.

[WM019 CSAMK3 Kits and Systems] Procures engineering change kits and systems in support of SAWS including Countermeasures Set Acoustic (CSA) system Torpedo Defense Console (TDC), Launch Control Panels (LCPs), CSA support system assets corrects obsolescence, including engineering changes necessary to accommodate modified devices and new devices, such as the ADC MK5.

[WM019 CSA MK2 MOD 2 Conversion to CSA MK4] Nonrecurring costs for the CSA Mk2 MOD 2 Conversion to CSA MK4.

[WM019 CSA ISEA] Supports engineering issues across all systems as they arise.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System						Modification Number / Title: 2 / CSA WM019			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: CSA WM019</i>													
B Kits													
Recurring													
1.1.1) WM019 CSA MK3 Engineering Changes (LAN, SWFTS, TDA) - Organic ⁽¹²⁾	- / 5.131	- / 2.460	- / 1.195	- / 0.711	- / -	- / 0.711	- / 0.512	- / 0.798	- / 0.814	- / 1.668	Continuing	Continuing	
1.1.2) WM019 ECPs CSA MK2 MOD 2 Conversion to MK 4 - Organic ⁽¹³⁾	- / -	- / -	- / -	- / 5.285	- / -	- / 5.285	- / 6.658	- / 0.532	- / 0.545	- / 0.558	Continuing	Continuing	
1.1.3) WM019 CSA MK2 MOD 0 OBSOLESCENCE - NonOrganic ⁽¹⁴⁾	- / 1.415	40 / 2.291	- / 0.400	- / 0.650	- / -	- / 0.650	- / 0.150	- / 0.387	- / 0.576	- / -	- / -	40 / 5.869	
1.1.4) WM019 CSAMK2 MOD2 CONVERSION to CSA MK4 - NonOrganic ⁽¹⁵⁾	- / -	- / -	2 / 1.080	3 / 1.652	- / -	3 / 1.652	2 / 1.120	2 / 1.143	3 / 1.730	2 / 0.250	Continuing	Continuing	
1.1.5) WM019 CSAMK3 Kits and Systems - NonOrganic ⁽¹⁶⁾	- / -	3 / 0.300	2 / 0.204	- / -	- / -	- / -	3 / 0.318	2 / 0.216	1 / 0.110	4 / 0.838	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 6.546	- / 5.051	- / 2.879	- / 8.298	- / -	- / 8.298	- / 8.758	- / 3.076	- / 3.775	- / 3.314	Continuing	Continuing	
Non-Recurring													
1.2.1) WM019 CSA MK2 MOD 2 Conversion to CSA MK4 - Organic	- / 1.705	- / 3.125	- / 2.811	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.641	
<i>Subtotal: Non-Recurring</i>	- / 1.705	- / 3.125	- / 2.811	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.641	
<i>Subtotal: CSA WM019</i>	- / 8.251	43 / 8.176	4 / 5.690	3 / 8.298	- / -	3 / 8.298	5 / 8.758	4 / 3.076	4 / 3.775	6 / 3.314	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.251	- / 8.176	- / 5.690	- / 8.298	- / -	- / 8.298	- / 8.758	- / 3.076	- / 3.775	- / 3.314	Continuing	Continuing	
Support (All Modification Items)													
2.1) WM019 CSA ISEA	- / 3.682	- / 0.727	- / 0.739	- / 0.752	- / -	- / 0.752	- / 0.771	- / 0.750	- / 0.791	- / 0.862	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 3.682	- / 0.727	- / 0.739	- / 0.752	- / -	- / 0.752	- / 0.771	- / 0.750	- / 0.791	- / 0.862	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: CSA WM019</i>	- / 0.000	- / -	- / 0.400	- / 0.825	- / -	- / 0.825	- / 1.190	- / 0.970	- / 0.890	- / 0.540	- / 4.520	- / 9.335	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.400	- / 0.825	- / -	- / 0.825	- / 1.190	- / 0.970	- / 0.890	- / 0.540	- / 4.520	- / 9.335	
Total													
Total Cost (Procurement + Support + Installation)	11.933	8.903	6.829	9.875	-	9.875	10.719	4.796	5.456	4.716	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 2 / CSA WM019

Modification Item 1 of 1: CSA WM019

Manufacturer Information

Manufacturer Name: CSA MK3 RAYTHEON ⁽¹⁷⁾ Manufacturer Location: Keyport, WA

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Apr 2016		Apr 2018	Apr 2019	Apr 2020	Apr 2021
Delivery Dates	Oct 2016	Oct 2017		Oct 2019	Oct 2020	Oct 2021	Oct 2022

Manufacturer Name: CSA MK2 Obsolescence NUWC Keyport Manufacturer Location: Keyport, WA

Administrative Leadtime (in Months): 4 Production Leadtime (in Months): 16

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017	Feb 2018	Feb 2019	Feb 2020	
Delivery Dates	Jun 2016	Jun 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	

Manufacturer Name: CSA MK 2 to MK4 RAYTHEON Manufacturer Location: Keyport, WA

Administrative Leadtime (in Months): 6 Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Apr 2016	Apr 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021
Delivery Dates		Oct 2017	Oct 2018	Oct 2019	Oct 2020	Oct 2021	Oct 2022

Installation Information

Method of Implementation: AIT:: Installation Name: WM019 CSA MK2 MOD 0 OBSOLESCENCE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	8 / 0.400	16 / 0.825	- / -	16 / 0.825	8 / 0.450	7 / 0.400	1 / 0.050	- / -	- / -	40 / 2.125
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	8 / 0.400	16 / 0.825	- / -	16 / 0.825	8 / 0.450	7 / 0.400	1 / 0.050	- / -	- / -	40 / 2.125

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 2 / CSA WM019

Modification Item 1 of 1: CSA WM019

Installation Information

Method of Implementation: AIT:: Installation Name: WM019 CSA MK2 MOD 0 OBSOLESCENCE

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	8	-	-	-	-	16	-	-	-	8	-	-	-	7	-	-	-	1	-	-	-	-	-	-	-	-	40
Out	-	-	-	-	-	-	8	-	-	-	-	16	-	-	-	8	-	-	-	7	-	-	-	1	-	-	-	-	-	-	-	-	40

Method of Implementation: AIT:: Installation Name: WM019 CSAMK2 MOD2 CONVERSION to CSA MK4

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.540	- / -	- / -	- / -	- / -	2 / 0.540
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.270	- / -	- / -	3 / -	4 / 0.270
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.540	- / -	- / -	2 / 0.540
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.540	- / -	2 / 0.540
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.810	3 / 0.810
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.540	2 / 0.540
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.540	1 / 0.270	2 / 0.540	2 / 0.540	8 / 1.350	15 / 3.240

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	2	-	1	-	1	-	8	15	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	2	-	1	-	1	8	15	

Method of Implementation: AIT:: Installation Name: WM019 CSAMK3 Kits and Systems

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	1 / 0.100	- / -	- / -	- / -	3 / 0.300

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2210 / Submarine Acoustic Warfare System	Modification Number / Title: 2 / CSA WM019

Modification Item 1 of 1: CSA WM019

Installation Information

Method of Implementation: AIT:: Installation Name: WM019 CSAMK3 Kits and Systems

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	- / -	- / -	- / -	2 / 0.200
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	- / -	- / -	3 / 0.300
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	2 / 0.200
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100	1 / 0.100
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.300	3 / 0.300
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.570	5 / 2.570
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200	3 / 0.300	3 / 0.300	- / -	11 / 3.170	19 / 3.970

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	3	-	-	2	-	1	-	-	-	-	-	11	19
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	3	-	-	2	-	1	-	-	-	-	11	19

Footnotes:

- (12) Shifted SSN 21 Class CSA MK3 SHIPALT from FY18 to FY21 and moved it from CSA MK2 Conversion to better align with CSA MK3 system.
- (13) Deleted one CSA MK2 Mod 2 Conversion to CSA MK4 procurement and associated NRE in FY17 in response to BBA 17. Will need to rebalance budget to procure later with FYDP.
- (14) CSA MK 2 Mod 0 obsolescence engineering completes in FY15, installation of Engineering Change (EC) Kit in FY16-FY20.
- (15) Moved CSA MK4 to "CSA MK2 MOD 2 Conversion to CSA MK4" to better describe the effort.
- (16) Shifted SSN 21 Class CSA MK 3 procurement from FY22 to FY21 with installations in FY23 due to availability schedule changes. The 3 systems being procured are whole CSA MK3 systems at \$500K apiece.
- (17) FY15 Procurement combined with VA Class SCN Buy.

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	139.182	10.653	8.396	6.893	-	6.893	25.404	32.455	43.982	42.056	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	139.182	10.653	8.396	6.893	-	6.893	25.404	32.455	43.982	42.056	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	139.182	10.653	8.396	6.893	-	6.893	25.404	32.455	43.982	42.056	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	0.753	0.535	-	0.535	0.584	0.538	0.968	1.402	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$0.928 million to account for the availability of prior year execution balances.

The Surface Ship Torpedo Defense (SSTD) OPN account procures a detect-to-engage layered torpedo defense capability. It is comprised of four major efforts, the AN/SLQ-25 (NIXIE) system, Torpedo Warning System (TWS), the Countermeasure Anti-Torpedo (CAT) and Acoustic Device Countermeasure (ADC MK2 Mod4). The CAT and ADC MK2 programs are funded with WPN.

WL101 AN/SLQ-25A UPGRADE KITS

Procures the upgrade to the AN/SLQ-25 (NIXIE) towed acoustic countermeasure system. The AN/SLQ-25C enhances ship survivability against future torpedo threats. The upgrades include a more reliable power amplifier, Commercial-off-the-shelf (COTS) Signal Generator with new operational capability, a new Littoral Fiber Optic Tow Cable (LFOTC) for operations in shallow water, and enhanced EC-16 capability (details classified).

WL102 Torpedo Warning System (TWS)

Procures the Torpedo Warning System (TWS). TWS is an automated Torpedo Detection, Classification, and Localization (TDCL) system that generates warning alerts on incoming threat torpedoes as well as the Tactical Control and Ready Stow launch support for autonomous Countermeasure Anti-Torpedo (CAT) hard-kill countermeasures. The TWS consists of towed active acoustic source and receive sensors, processing cabinets and workstations, and CAT Ready Stows mounted port and starboard.

WL103 AN/SLQ-25X (TWS COMPATIBLE NIXIE SYSTEM)

The solicitation for AN/SLQ-25X was cancelled.

WL104 AN/SLQ-25C EC-2()

In FY 2016 this effort has moved to WL106 Engineering Changes.

Procures upgrade kits to bring AN-SLQ25C up to the EC-2 configuration which provides upgrades to winch, open architecture transmitting cabinet and anti-tamper technology. The EC-2 upgrade will enable integration between the AN/SLQ system and the TWS system and increases the reliability and maintainability of the AN/SLQ-25 system. The upgrade will also eliminate several obsolete parts in the AN/SLQ-25C system.

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment		P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)
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	
<p>WL105 AN/SLQ-25C CVN BATTLE SPARE In FY 2010 procured 1 AN/SLQ-25C for use as a replacement end item in the event of significant damage to a fleet system. Without this spare, a ship will go unprotected in excess of one year until a replacement system can be procured. The Battle Spare will be maintained at the latest configuration baseline.</p> <p>WL106 ENGINEERING CHANGES Tech Refresh effort provides hardware and software configuration changes to the production baseline of the AN/SLQ-25() System in response to service identified issues, obsolescence and limiting component availability. EC-1 software updates to fix AN/SLQ-25() outstanding issues which could render key functions inoperable without notification. This effort decreases potential vulnerability against torpedo threat by ensuring system baseline is available and maintainable to support operational readiness. Fact of Life Technology Insertions provide for military service life sustainability. In FY 2016 WL104 moves to WL106 Engineering Changes. Procures upgrade kits to bring AN-SLQ25C up to the EC-2 configuration which provides upgrades to winch, open architecture transmitting cabinet and anti-tamper technology. The EC-2 upgrade will enable integration between the AN/SLQ system and the TWS system and increases the reliability and maintainability of the AN/SLQ-25 system. The upgrade will also eliminate several obsolete parts in the AN/SLQ-25C system.</p> <p>The Surface Ship Torpedo Defense program uses P-40 resources to fund In-Service Engineering Agent (ISEA) support to the Fleet, government oversight of contractor production and contractor consulting services.</p> <p>WL830 PRODUCTION ENGINEERING (IN-HOUSE) Funding provides specification preparation and validation, production planning, contract deliverable monitoring, prime contractor monitoring for cost, schedule, and performance and ILS planning, review and evaluation of obsolescence issues, and coordination of government furnished information (GFI) and government furnished equipment (GFE).</p> <p>WL840 QUALITY ASSURANCE (IN-HOUSE) Funding under this cost code provides for quality assurance efforts including conducting quality assurance reviews of the contractor and subcontractors, documentation indicating contractor conformity to product performance requirements, and review of objective quality evidence.</p> <p>WL860 ACCEPTANCE TEST & ENGINEERING Funding under this cost code provides for production acceptance of contractor hardware.</p> <p>WL900 PRODUCTION ENGINEERING (OUT-HOUSE) Consulting services for FY 2012 and prior provide production monitoring, installation planning and coordination support.</p> <p>WL900 CONSULTING SERVICES Funding under this cost code provides for contractor support to the program office for production monitoring, installation planning and coordination support.</p> <p>WL905 PRODUCTION ENGINEERING CONTRACTOR Funding under this cost code provides for production engineering tasks performed by the hardware contractor.</p>		

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment

P-1 Line Item Number / Title:
2213 / Surface Ship Torpedo Def (SSTD)

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Surface Ship Torpedo Def (SSTD)			- / 15.254	- / 4.271	- / 3.167	- / 2.824	- / -	- / 2.824
P-3a	1 / WL101 AN/SLQ25A UPGRADE KITS (TBD)			- / 113.075	- / -	- / -	- / -	- / -	- / -
P-3a	2 / WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE (TBD)			- / 0.000	- / -	- / 0.400	- / 0.708	- / -	- / 0.708
P-3a	3 / WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE (TBD)			- / 3.788	- / -	- / -	- / -	- / -	- / -
P-3a	4 / WL104 AN-SLQ25C EC-2 () (TBD)			- / 7.065	- / 6.382	- / -	- / -	- / -	- / -
P-3a	5 / WL106 ENGINEERING CHANGES 25C EC-2 (TBD)			- / 0.000	- / -	- / 4.829	- / 3.361	- / -	- / 3.361
P-40	Total Gross/Weapon System Cost			- / 139.182	- / 10.653	- / 8.396	- / 6.893	- / -	- / 6.893

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Surface Ship Torpedo Def (SSTD)			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / WL101 AN/SLQ25A UPGRADE KITS (TBD)			- / -	- / -	- / -	- / -	- / -	- / 113.075
P-3a	2 / WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE (TBD)			- / 12.591	- / 20.209	- / 26.779	- / 24.505	- / 195.439	- / 280.631
P-3a	3 / WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE (TBD)			- / -	- / -	- / -	- / -	- / -	- / 3.788
P-3a	4 / WL104 AN-SLQ25C EC-2 () (TBD)			- / -	- / -	- / -	- / -	- / -	- / 13.447
P-3a	5 / WL106 ENGINEERING CHANGES 25C EC-2 (TBD)			- / 8.920	- / 10.307	- / 8.433	- / 8.594	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 25.404	- / 32.455	- / 43.982	- / 42.056	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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2213 / Surface Ship Torpedo Def (SSTD) **Aggregated Items Title:** Surface Ship Torpedo Def (SSTD)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) WL105 AN-SLQ-25C CVN BATTLE SPARE																				
1.1) HARDWARE	A		-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 1) WL105 AN-SLQ-25C CVN BATTLE SPARE			-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2) WL106 ENGINEERING CHANGE ⁽¹⁾																				
2.1) EC-1 UPDATE SLQ-25	A		-	-	-	-	-	0.700	-	-	0.700	-	-	0.700	-	-	-	-	0.700	
2.2) TECH REFRESH EC SLQ-25	A		-	-	-	-	-	-	-	-	0.468	-	-	0.468	-	-	-	-	0.468	
Subtotal: 2) WL106 ENGINEERING CHANGE			-	-	0.000	-	-	0.700	-	-	1.168	-	-	1.168	-	-	-	-	1.168	
3) WL830 PRODUCTION ENGINEERING																				
3.1) PRODUCTION ENGINEERING IN-HOUSE	A		-	-	11.919	-	-	0.499	-	-	0.499	-	-	0.364	-	-	-	-	0.364	
Subtotal: 3) WL830 PRODUCTION ENGINEERING			-	-	11.919	-	-	0.499	-	-	0.499	-	-	0.364	-	-	-	-	0.364	
4) WL840 QUALITY ASSURANCE (IN-HOUSE)																				
4.1) QUALITY ASSURANCE (IN-HOUSE)	A		-	-	0.100	-	-	0.764	-	-	0.200	-	-	0.200	-	-	-	-	0.200	
Subtotal: 4) WL840 QUALITY ASSURANCE (IN-HOUSE)			-	-	0.100	-	-	0.764	-	-	0.200	-	-	0.200	-	-	-	-	0.200	
5) WL860 ACCEPTANCE TEST AND ENGINEERING																				
5.1) Acceptance Test & Engineering	A		-	-	0.100	-	-	0.724	-	-	0.500	-	-	0.500	-	-	-	-	0.500	
Subtotal: 5) WL860 ACCEPTANCE TEST AND ENGINEERING			-	-	0.100	-	-	0.724	-	-	0.500	-	-	0.500	-	-	-	-	0.500	
6) WL900 SERVICES																				
6.1) PRODUCTION ENGINEERING (OUT-HOUSE)	A		-	-	0.925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6.2) CONSULTING SERVICES	A		-	-	0.510	-	-	0.584	-	-	0.200	-	-	0.250	-	-	-	-	0.250	
Subtotal: 6) WL900 SERVICES			-	-	1.435	-	-	0.584	-	-	0.200	-	-	0.250	-	-	-	-	0.250	
7) WL905 PRODUCTION ENGINEERING CONTRACTOR																				
7.1) PRODUCTION ENGINEERING CONTRACTOR	A		-	-	0.200	-	-	1.000	-	-	0.600	-	-	0.342	-	-	-	-	0.342	
Subtotal: 7) WL905 PRODUCTION ENGINEERING CONTRACTOR			-	-	0.200	-	-	1.000	-	-	0.600	-	-	0.342	-	-	-	-	0.342	
Total			-	-	15.254	-	-	4.271	-	-	3.167	-	-	2.824	-	-	-	-	2.824	

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Aggregated Items Title: Surface Ship Torpedo Def (SSTD)

Footnotes:

⁽¹⁾ Software update to fix AN/SLQ-25C outstanding issues to maintain key function operability against torpedo threat. Tech Refresh for the AN/SLQ-25 production baseline supports hardware and software configuration changes for service identified issues, obsolescence and limiting component availability. Cost estimate based on historical contractor data.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 1 / WL101 AN/SLQ25A UPGRADE KITS
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	113.075	-	-	-	-	-	-	-	-	-	-	113.075
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	113.075	-	-	-	-	-	-	-	-	-	-	113.075
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	113.075	-	-	-	-	-	-	-	-	-	-	113.075

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Upgrade AN/SLQ-25A System to AN/SLQ-25C. Upgrade kits include the following engineering changes: EC-4/9/10/12/13/14/15/16/17.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)					Modification Number / Title: 1 / WL101 AN/SLQ25A UPGRADE KITS			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: WL101 AN/SLQ25A UPGRADE KITS</i>													
B Kits													
Recurring													
1.1.1) 25A MODIFICATION KITS - NonOrganic	214 / 51.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	214 / 51.700	
1.1.2) OTHER (CONG PLUS-UP) - NonOrganic	- / 34.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.100	
1.1.3) OTHER (DEC CONG PLUS-UP) - NonOrganic	- / 15.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.700	
<i>Subtotal: Recurring</i>	<i>- / 91.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 91.500</i>	
<i>Subtotal: WL101 AN/SLQ25A UPGRADE KITS</i>	<i>214 / 91.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>214 / 91.500</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 91.500</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 91.500</i>	
Installation													
<i>Modification Item 1 of 1: WL101 AN/SLQ25A UPGRADE KITS</i>													
<i>Subtotal: Installation</i>	<i>- / 21.575</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 21.575</i>	
Total													
Total Cost (Procurement + Support + Installation)	113.075	-	-	-	-	-	-	-	-	-	-	113.075	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 1 / WL101 AN/SLQ25A UPGRADE KITS
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Modification Item 1 of 1: WL101 AN/SLQ25A UPGRADE KITS

Installation Information

Method of Implementation: AIT/SHIPYARD:: Installation Name: 25A MODIFICATION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	213 / 21.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	213 / 21.575
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	213 / 21.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	213 / 21.575

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	213
Out	213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	213

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)				Modification Number / Title: 2 / WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	0.400	0.708	-	0.708	12.591	20.209	26.779	24.505	195.439	280.631
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	0.400	0.708	-	0.708	12.591	20.209	26.779	24.505	195.439	280.631
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	0.400	0.708	-	0.708	12.591	20.209	26.779	24.505	195.439	280.631
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[TWS EQUIPMENT] TWS system provides torpedo detection, classification and localization of threat torpedoes. Subfunctional groups include the Target Acquisition Group, Tactical Control Group and the Ready Stow Group.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)					Modification Number / Title: 2 / WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE</i>													
B Kits													
Recurring													
1.1.1) TWS EQUIPMENT - NonOrganic ⁽²⁾	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.900	1 / 9.060	2 / 19.696	1 / 10.045	45 / 44.128	50 / 91.829	
1.1.2) ENG CHANGE PROPOSALS ECPS - Organic	- / -	- / -	- / 0.400	- / 0.708	- / -	- / 0.708	- / 3.691	- / 4.249	- / -	- / -	- / -	- / 19.048	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.400</i>	<i>- / 0.708</i>	<i>- / -</i>	<i>- / 0.708</i>	<i>- / 12.591</i>	<i>- / 13.309</i>	<i>- / 19.696</i>	<i>- / 10.045</i>	<i>- / 44.128</i>	<i>- / 100.877</i>	
<i>Subtotal: WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.400</i>	<i>- / 0.708</i>	<i>- / -</i>	<i>- / 0.708</i>	<i>1 / 12.591</i>	<i>1 / 13.309</i>	<i>2 / 19.696</i>	<i>1 / 10.045</i>	<i>45 / 44.128</i>	<i>50 / 100.877</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.400</i>	<i>- / 0.708</i>	<i>- / -</i>	<i>- / 0.708</i>	<i>- / 12.591</i>	<i>- / 13.309</i>	<i>- / 19.696</i>	<i>- / 10.045</i>	<i>- / 44.128</i>	<i>- / 100.877</i>	
Installation													
<i>Modification Item 1 of 1: WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE</i>													
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.900</i>	<i>- / 7.083</i>	<i>- / 14.460</i>	<i>- / 151.311</i>	<i>- / 179.754</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	0.400	0.708	-	0.708	12.591	20.209	26.779	24.505	195.439	280.631	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 2 / WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE

Modification Item 1 of 1: WL102 TORPEDO WARNING SYSTEM (TWS) HARDWARE

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 12	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates				May 2018	May 2019	May 2020	May 2021
Delivery Dates				May 2019	May 2020	May 2021	May 2022

Installation Information

Method of Implementation: AIT/SHIPYARD:: Installation Name: TWS EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.900	- / -	- / -	- / -	1 / 6.900
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.083	- / -	- / -	1 / 7.083
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 14.460	- / -	2 / 14.460
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.230	1 / 7.230
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 144.081	45 / 144.081
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.900	1 / 7.083	2 / 14.460	46 / 151.311	50 / 179.754

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	2	-	46	50
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	-	2	-	46	50

Footnotes:
 (2) TWS system provides torpedo detection, classification and localization of threat torpedoes. Subfunctional groups include the Target Acquisition Group, Tactical Control Group and the Ready Stow Group.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)				Modification Number / Title: 3 / WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.788	-	-	-	-	-	-	-	-	-	-	3.788
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.788	-	-	-	-	-	-	-	-	-	-	3.788
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.788	-	-	-	-	-	-	-	-	-	-	3.788
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SLQ-25X has been cancelled.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 3 / WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE

Models of Systems Affected: [No Model Specified]	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE												
B Kits												
Recurring												
1.1.2) FY10 CONG ADD (WLCA3) - Organic	1 / 2.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.200
1.1.3) WLCA3 PROD ENG & INT TEST - Organic	- / 1.588	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.588
<i>Subtotal: Recurring</i>	- / 3.788	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.788
<i>Subtotal: WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE</i>	1 / 3.788	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.788
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.788	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.788
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	3.788	-	-	-	-	-	-	-	-	-	-	3.788

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 3 / WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE
Modification Item 1 of 1: WL103 AN/SLQ-25X (TWS COMPATIBLE SYSTEM) HARDWARE		
Installation Information		
Method of Implementation (Organic): FY10 CONG ADD (WLCA3) - Not Installed		Installation Quantity: 1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 4 / WL104 AN-SLQ25C EC-2 ()
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7.065	6.382	-	-	-	-	-	-	-	-	-	13.447
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	7.065	6.382	-	-	-	-	-	-	-	-	-	13.447
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	7.065	6.382	-	-	-	-	-	-	-	-	-	13.447
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures upgrade kits and engineering changes to bring AN-SLQ25C up to the EC-2 configuration which extends the systems useful military life, by upgrading the winch, open architecture transmitting cabinet and anti-tamper technology. The upgrade will eliminate several obsolete parts in the AN/SLQ-25C system and increase the reliability and maintainability of the system. The EC-2 upgrade will enable integration between the AN/SLQ system and the TWS system.

[AN-SLQ25C EC-2 () ENGINEERING CHANGE] FY 2014 Appropriation Act directed the restructure of AN/SLQ-25. FY 2015 will begin the restructure of the AN/SLQ-25 with engineering change design to enable integration between the AN/SLQ-25 system and the Torpedo Warning System (TWS) and increase reliability and maintainability of the AN/SLQ-25 system.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)					Modification Number / Title: 4 / WL104 AN-SLQ25C EC-2 ()			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: WL104 AN-SLQ25C EC-2 ()</i>													
B Kits													
Recurring													
1.1.1) 25C EC2 EQUIPMENT - NonOrganic	1 / 0.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.480	
1.1.2) AN-SLQ25C EC-2 () ENGINEERING CHANGE - Organic ⁽³⁾	- / -	- / 3.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.382	
1.1.3) NON-RECURRING HARDWARE COSTS - Organic	- / 6.434	- / 3.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.434	
<i>Subtotal: Recurring</i>	- / 6.914	- / 6.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.296	
<i>Subtotal: WL104 AN-SLQ25C EC-2 ()</i>	1 / 6.914	- / 6.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 13.296	
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.914	- / 6.382	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.296	
Installation													
<i>Modification Item 1 of 1: WL104 AN-SLQ25C EC-2 ()</i>													
<i>Subtotal: Installation</i>	- / 0.151	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.151	
Total													
Total Cost (Procurement + Support + Installation)	7.065	6.382	-	-	-	-	-	-	-	-	-	13.447	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 4 / WL104 AN-SLQ25C EC-2 ()

Modification Item 1 of 1: WL104 AN-SLQ25C EC-2 ()

Manufacturer Information

Manufacturer Name: Argon ⁽⁴⁾	Manufacturer Location: Union Town, PA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 14

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016	Jan 2017	Jan 2018	Jan 2019		
Delivery Dates	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020		

Installation Information

Method of Implementation: AIT/Shipyard:: Installation Name: 25C EC2 EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.151	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.151
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.151	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.151

Installation Schedule

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

Footnotes:
⁽³⁾ FY 2016-FY 2019 WL104-AN/SLQ-25C EC-2 moved to WL106 ENGINEERING CHANGES as part of FY 2014 AN/SLQ-25C EC-2 Appropriations Act directed Restructuring.
⁽⁴⁾ Administrative lead time is 6-9 months.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)				Modification Number / Title: 5 / WL106 ENGINEERING CHANGES 25C EC-2				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	4.829	3.361	-	3.361	8.920	10.307	8.433	8.594	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	4.829	3.361	-	3.361	8.920	10.307	8.433	8.594	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	4.829	3.361	-	3.361	8.920	10.307	8.433	8.594	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[WL106 Engineering Changes 25C EC2] Tech Refresh effort provides hardware and software configuration changes to the production baseline of the AN/SLQ-25() System in response to service identified issues, obsolescence and limiting component availability. EC-1 software updates to fix AN/SLQ-25() outstanding issues which could render key functions inoperable without notification. Effort decreases potential vulnerability against torpedo threat by ensuring system baseline is available and maintainable to support operational readiness. Fact of Life Technology Insertions provide for military service life sustainability. In FY 2016 WL104 moved to WL106 Engineering Changes. Procures upgrade kits to bring AN-SLQ25C up to the EC-2 configuration which provides upgrades to winch, open architecture transmitting cabinet and anti-tamper technology. The EC-2 upgrade will enable integration between the AN/SLQ system and the TWS system and increases the reliability and maintainability of the AN/SLQ-25 system. The upgrade will also eliminate several obsolete parts in the AN/SLQ-25C system.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)					Modification Number / Title: 5 / WL106 ENGINEERING CHANGES 25C EC-2			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: WL106 ENGINEERING CHANGES 25C EC-2</i>													
B Kits													
Recurring													
1.1.1) WL106 Engineering Changes 25C EC2 - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.879	2 / 4.976	3 / 7.613	3 / 7.760	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 4.879	- / 4.976	- / 7.613	- / 7.760	Continuing	Continuing	
Non-Recurring													
1.2.1) WL106 25C-EC2 Non Recurring - Organic	- / -	- / -	- / 4.829	- / 3.361	- / -	- / 3.361	- / 4.041	- / 4.527	- / -	- / -	- / -	- / 16.758	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / 4.829	- / 3.361	- / -	- / 3.361	- / 4.041	- / 4.527	- / -	- / -	- / -	- / 16.758	
<i>Subtotal: WL106 ENGINEERING CHANGES 25C EC-2</i>	- / -	- / -	- / 4.829	- / 3.361	- / -	- / 3.361	2 / 8.920	2 / 9.503	3 / 7.613	3 / 7.760	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 4.829	- / 3.361	- / -	- / 3.361	- / 8.920	- / 9.503	- / 7.613	- / 7.760	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: WL106 ENGINEERING CHANGES 25C EC-2</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.804	- / 0.820	- / 0.834	- / 1.698	- / 4.156	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	4.829	3.361	-	3.361	8.920	10.307	8.433	8.594	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2213 / Surface Ship Torpedo Def (SSTD)	Modification Number / Title: 5 / WL106 ENGINEERING CHANGES 25C EC-2

Modification Item 1 of 1: WL106 ENGINEERING CHANGES 25C EC-2

Manufacturer Information

Manufacturer Name: ARGON	Manufacturer Location: Uniontown, PA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 14

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates				Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates				Mar 2019	Mar 2020	Mar 2021	Mar 2022

Installation Information

Method of Implementation: [none specified]:: Installation Name: WL106 Engineering Changes 25C EC2

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.804	- / -	- / -	- / -	2 / 0.804
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.820	- / -	- / -	2 / 0.820
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.834	1 / 0.418	3 / 1.252
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.280	3 / 1.280
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.804	2 / 0.820	2 / 0.834	4 / 1.698	10 / 4.156

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	2	-	4	10
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	2	4	10

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2225 / Fixed Surveillance System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	947.995	170.831	146.968	145.701	-	145.701	300.028	246.381	109.530	108.995	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	947.995	170.831	146.968	145.701	-	145.701	300.028	246.381	109.530	108.995	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	947.995	170.831	146.968	145.701	-	145.701	300.028	246.381	109.530	108.995	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

[P40A / Classified (2225)]: Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

[P40A / Classified (222506)]: Additional details with respect to this line item are held at a higher classification. This line item is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2225 / Fixed Surveillance System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Fixed Surveillance System			- / 947.995	- / 170.831	- / 146.968	- / 145.701	- / -	- / 145.701
P-40	Total Gross/Weapon System Cost			- / 947.995	- / 170.831	- / 146.968	- / 145.701	- / -	- / 145.701

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3 **P-1 Line Item Number / Title:** 2225 / Fixed Surveillance System **Aggregated Items Title:** Fixed Surveillance System

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) Classified																				
1.1) Classified (2225)	A		-	-	882.583	-	-	164.094	-	-	140.188	-	-	138.699	-	-	-	-	-	138.699
1.2) Classified (222506)	A		-	-	65.412	-	-	6.737	-	-	6.780	-	-	7.002	-	-	-	-	-	7.002
Subtotal: 1) Classified			-	-	947.995	-	-	170.831	-	-	146.968	-	-	145.701	-	-	-	-	-	145.701
Total			-	-	947.995	-	-	170.831	-	-	146.968	-	-	145.701	-	-	-	-	-	145.701

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

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2237 / SURTASS
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0204311N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	116.548	23.819	12.953	36.136	-	36.136	19.472	18.715	19.543	24.831	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	116.548	23.819	12.953	36.136	-	36.136	19.472	18.715	19.543	24.831	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	116.548	23.819	12.953	36.136	-	36.136	19.472	18.715	19.543	24.831	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.073	0.795	-	-	-	0.605	-	1.347	-	-	2.820
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

PROGRAM COVERAGE: Surveillance Towed Array Sensor System (SURTASS) is the mobile, tactical, and strategic arm of the Navy's undersea surveillance capability that provides deep ocean and littoral acoustic detection and cueing for tactical weapon platforms against diesel and nuclear submarines as well as surface vessels in any given Area of Operations worldwide. Dedicated ASW T-AGOS ships tow long acoustic arrays that collect acoustic data and relay that data to shore facilities via SHF satellites for processing and fusion of the resulting contact data with other sensors. Currently, there are five T-AGOS ships operating in the Pacific area. Ship configurations are:

- (1) One T-AGOS Small Waterplane Area Twin Hull (SWATH) ship, a "small" SWATH-P platform, T-AGOS 22, USNS LOYAL, supporting passive operations using the TB-29A Twinline (TL-29A) array, providing improved detection and classification capability. This ship class uses the Integrated Common Processor (ICP) signal processing and display system common with the SSN ARCI Sonar Processing System;
- (2) One Low Frequency Active (LFA) equipped ship, T-AGOS 23 USNS IMPECCABLE, the first "large" SWATH-A, configured with the ICP Processing and Display system, the TL-29A array, and the Low Frequency Active (LFA) transmit capability. The active capability provides greatly improved detection against diesel submarines as well as the quiet nuclear submarine threat;
- (3) Three T-AGOS SWATH-P platforms, T-AGOS 19 USNS VICTORIOUS, T-AGOS 20 USNS ABLE, and T-AGOS 21 USNS EFFECTIVE, supporting passive/active operations, configured with the TL-29A array, the ICP processing and display system, and the Compact Low Frequency Active (CLFA) transmit capability. USNS ABLE is outfitted with the RDT&E,N CLFA Engineering Development Model (EDM) capability installed as part of her reactivation. USNS EFFECTIVE is outfitted with the first production CLFA capability, installed in FY11. USNS VICTORIOUS is outfitted with the second production CLFA capability, installed in FY12, completing the planned production effort. The RDT&E EDM system began its testing in FY08 and continued into FY12. Two production systems were procured under this line item - one in FY09 and one in FY10.

In addition to the five platforms described above, two shore sites are configured with the ICP processing and display suites to receive the T-AGOS acoustic data via SHF satellite communication links. Major upgrades to the ship platforms include TB-29A Twinline Arrays, the ICP signal processing and display upgrade that provides improved ship and shore processing in support of the TB-29A twinline arrays and active processing, and Communication C4I upgrades. One of the two shore sites is equipped with two (2) SURTASS Team Trainers (STTs) to support Home Port Training Periods (HPTPs).

A cost sharing agreement with Japan also provides a shore site and two Japanese SWATH ships with similar capability to the T-AGOS SWATH ships for the Western Pacific region. Japanese Auxiliary Ocean Surveillance (JAOS) ships were upgraded with Twinline A180R passive receive arrays in FY04, and were updated with the ICP in FY09.

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment		P-1 Line Item Number / Title: 2237 / SURTASS
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0204311N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>FY 15-24 PA ATR provided \$14.2M in FY15 to procure an additional Tinline Towed Array (TL-29), processing equipment, spares for the array, and ancillary equipment to satisfy an urgent requirement of the combatant commanders for additional maritime intelligence, surveillance, and reconnaissance capabilities in the Atlantic Ocean.</p> <p>[P3A / VG006 - Prior Year Funding]: VG006 Upgrade Procurement - Integrated Common Processor (ICP) signal processing and display upgrade for SURTASS platforms, ICP signal processing and display upgrade for J-AOS, U.S. and J-AOS twinline arrays, twinline array support equipment, ICP Shore OPS and Maintenance trainers at NOPF Dam Neck, VA and NOPF Whidbey Island, WA, SURTASS Team Trainers at NOPF Whidbey Island, Configuration Control Model (CCM) Tech Refresh systems, and Engineering Measurements Program (EMP) Tech Refresh Systems.</p> <p>[P3A - 7 / VG007 - Field Changes/Modifications]: VG007 Field Changes/Modifications - Provide for correction of deficiencies identified by Fleet use, array support equipment, communications equipment, and replacement of aging/unsupportable equipment.</p> <p>VG776 Installation of Equipment - Installation Agents: SSC LANT, SSC PAC, Military Sealift Command, and Lockheed Martin.</p>		

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment

P-1 Line Item Number / Title:
2237 / SURTASS

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0204311N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / VG006 - Prior Year Funding (NA)			- / 32.400	- / -	- / -	- / -	- / -	- / -
P-3a	2 / VG006 - Theater Anti-Submarine Warfare (TASW) (TBD)			- / 0.000	- / 14.200	- / -	- / -	- / -	- / -
P-3a	3 / VG006 - Integrated Common Processor (TBD)			- / 21.540	- / 8.537	- / 7.317	- / 9.756	- / -	- / 9.756
P-3a	4 / VG006 - TL-29A. Twinline Arrays (TBD)			- / 44.687	- / -	- / -	- / 24.000	- / -	- / 24.000
P-3a	5 / VG006 - SURTASS Team Trainer (TBD)			- / 2.000	- / -	- / 4.590	- / 1.277	- / -	- / 1.277
P-3a	6 / VG006 - ICP Training Device (TBD)			- / 5.831	- / -	- / -	- / -	- / -	- / -
P-3a	7 / VG007 - Field Changes/Modifications (TBD)			- / 10.090	- / 1.082	- / 1.046	- / 1.103	- / -	- / 1.103
P-40	Total Gross/Weapon System Cost			- / 116.548	- / 23.819	- / 12.953	- / 36.136	- / -	- / 36.136

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / VG006 - Prior Year Funding (NA)			- / -	- / -	- / -	- / -	- / -	- / 32.400
P-3a	2 / VG006 - Theater Anti-Submarine Warfare (TASW) (TBD)			- / -	- / -	- / -	- / -	- / -	- / 14.200
P-3a	3 / VG006 - Integrated Common Processor (TBD)			- / 12.886	- / 13.219	- / 11.377	- / 11.388	- / 2.880	- / 98.900
P-3a	4 / VG006 - TL-29A. Twinline Arrays (TBD)			- / 1.785	- / 1.820	- / 1.860	- / 10.418	- / -	- / 84.570
P-3a	5 / VG006 - SURTASS Team Trainer (TBD)			- / 4.190	- / 1.750	- / 4.500	- / 1.750	Continuing	Continuing
P-3a	6 / VG006 - ICP Training Device (TBD)			- / -	- / -	- / -	- / -	- / -	- / 5.831
P-3a	7 / VG007 - Field Changes/Modifications (TBD)			- / 0.611	- / 1.926	- / 1.806	- / 1.275	- / -	- / 18.939
P-40	Total Gross/Weapon System Cost			- / 19.472	- / 18.715	- / 19.543	- / 24.831	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.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 1 / VG006 - Prior Year Funding
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	32.400	-	-	-	-	-	-	-	-	-	-	32.400
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	32.400	-	-	-	-	-	-	-	-	-	-	32.400
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	32.400	-	-	-	-	-	-	-	-	-	-	32.400

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:
Prior year funding

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2237 / SURTASS					Modification Number / Title: 1 / VG006 - Prior Year Funding			
Models of Systems Affected: Prior Year Funding				Modification Type: NA				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> VG006 - Prior Year Funding													
B Kits													
Recurring													
1.1.1) Prior Year Funding - Organic	2 / 32.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 32.400	
<i>Subtotal: Recurring</i>	- / 32.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 32.400	
<i>Subtotal: VG006 - Prior Year Funding</i>	2 / 32.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 32.400	
<i>Subtotal: Procurement, All Modification Items</i>	- / 32.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 32.400	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	32.400	-	-	-	-	-	-	-	-	-	-	32.400	

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Exhibit P-3a, Individual Modification: PB 2017 Navy					Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3			P-1 Line Item Number / Title: 2237 / SURTASS			Modification Number / Title: 1 / VG006 - Prior Year Funding	
Modification Item 1 of 1: VG006 - Prior Year Funding							
Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (<i>in Months</i>): 0				Production Leadtime (<i>in Months</i>): 0			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							
Installation Information							
Method of Implementation (Organic): Prior Year Funding					Installation Quantity: 2		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2237 / SURTASS				Modification Number / Title: 2 / VG006 - Theater Anti-Submarine Warfare (TASW)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	14.200	-	-	-	-	-	-	-	-	-	14.200
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	14.200	-	-	-	-	-	-	-	-	-	14.200
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	14.200	-	-	-	-	-	-	-	-	-	14.200
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY 15-24 PA ATR provided \$14.2M in FY15 to procure an additional Twin-line Towed Array (TL-29), processing equipment, spares for the array, and ancillary equipment to satisfy an urgent requirement of the combatant commanders for additional maritime intelligence, surveillance, and reconnaissance capabilities in the Atlantic Ocean.

[Theater Anti-Submarine Warfare] Procurement of an additional TL-29 Twin-line Towed Array

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 2 / VG006 - Theater Anti-Submarine Warfare (TASW)

Models of Systems Affected: [No Model Specified]	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

<i>Modification Item 1 of 1:</i> VG006 - Theater Anti-Submarine Warfare (TASW)												
B Kits												
Recurring												
1.1.1) Theater Anti-Submarine Warfare - NonOrganic	- / -	1 / 10.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.800
<i>Subtotal: Recurring</i>	- / 0.000	- / 10.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.800
<i>Subtotal: VG006 - Theater Anti-Submarine Warfare (TASW)</i>	- / -	1 / 10.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 10.800
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 10.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 10.800

Installation

<i>Modification Item 1 of 1:</i> VG006 - Theater Anti-Submarine Warfare (TASW)	- / 0.000	- / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.400
<i>Subtotal: Installation</i>	- / 0.000	- / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.400

Total

Total Cost (Procurement + Support + Installation)	0.000	14.200	-	-	-	-	-	-	-	-	-	14.200
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 2 / VG006 - Theater Anti-Submarine Warfare (TASW)

Modification Item 1 of 1: VG006 - Theater Anti-Submarine Warfare (TASW)

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Dec 2015					
Delivery Dates		Aug 2016					
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 0			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: Theater Anti-Submarine Warfare

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	1 / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.400
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 3.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.400

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2237 / SURTASS				Modification Number / Title: 3 / VG006 - Integrated Common Processor				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	21.540	8.537	7.317	9.756	-	9.756	12.886	13.219	11.377	11.388	2.880	98.900
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	21.540	8.537	7.317	9.756	-	9.756	12.886	13.219	11.377	11.388	2.880	98.900
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	21.540	8.537	7.317	9.756	-	9.756	12.886	13.219	11.377	11.388	2.880	98.900
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

FY14 began cyclical ICP Tech Refresh of hardware. FY15 procured J-AOS Tech Refresh hardware. FY16 and out-year funding continues cyclical ICP Tech Refresh of hardware.
 NOTE: ICP system configuration varies from ship to ship depending upon the type of ship arrays used (passive only, or passive and active). Accordingly, the procurement and installation costs will vary from one platform to another, depending on the configuration and the ship.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2237 / SURTASS					Modification Number / Title: 3 / VG006 - Integrated Common Processor			
Models of Systems Affected: Integrated Common Processor				Modification Type: TBD				Related RDT&E PEs: 0204311N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> VG006 - Integrated Common Processor													
B Kits													
Recurring													
1.1.1) Integrated Common Processor - NonOrganic ⁽¹⁾	13 / 18.656	5 / 5.637	5 / 5.067	5 / 7.556	- / -	5 / 7.556	6 / 10.486	6 / 10.019	5 / 8.577	5 / 9.238	- / -	50 / 75.236	
<i>Subtotal: Recurring</i>	- / 18.656	- / 5.637	- / 5.067	- / 7.556	- / -	- / 7.556	- / 10.486	- / 10.019	- / 8.577	- / 9.238	- / -	- / 75.236	
<i>Subtotal: VG006 - Integrated Common Processor</i>	13 / 18.656	5 / 5.637	5 / 5.067	5 / 7.556	- / -	5 / 7.556	6 / 10.486	6 / 10.019	5 / 8.577	5 / 9.238	- / -	50 / 75.236	
<i>Subtotal: Procurement, All Modification Items</i>	- / 18.656	- / 5.637	- / 5.067	- / 7.556	- / -	- / 7.556	- / 10.486	- / 10.019	- / 8.577	- / 9.238	- / -	- / 75.236	
Installation													
<i>Modification Item 1 of 1:</i> VG006 - Integrated Common Processor													
	- / 2.884	- / 2.900	- / 2.250	- / 2.200	- / -	- / 2.200	- / 2.400	- / 3.200	- / 2.800	- / 2.150	- / 2.880	- / 23.664	
<i>Subtotal: Installation</i>	- / 2.884	- / 2.900	- / 2.250	- / 2.200	- / -	- / 2.200	- / 2.400	- / 3.200	- / 2.800	- / 2.150	- / 2.880	- / 23.664	
Total													
Total Cost (Procurement + Support + Installation)	21.540	8.537	7.317	9.756	-	9.756	12.886	13.219	11.377	11.388	2.880	98.900	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 3 / VG006 - Integrated Common Processor

Modification Item 1 of 1: VG006 - Integrated Common Processor

Manufacturer Information

Manufacturer Name: Lockheed Martin				Manufacturer Location: VA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates	Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates	Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	Jan 2022

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: Integrated Common Processor

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 2.884	6 / 2.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	13 / 5.784
FY 2015	- / -	- / -	5 / 2.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.250
FY 2016	- / -	- / -	- / -	5 / 2.200	- / -	5 / 2.200	- / -	- / -	- / -	- / -	- / -	5 / 2.200
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.400	- / -	- / -	- / -	- / -	5 / 2.400
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.200	- / -	- / -	- / -	6 / 3.200
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.800	- / -	- / -	6 / 2.800
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.150	- / -	5 / 2.150
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.880	5 / 2.880
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 2.884	6 / 2.900	5 / 2.250	5 / 2.200	- / -	5 / 2.200	5 / 2.400	6 / 3.200	6 / 2.800	5 / 2.150	5 / 2.880	50 / 23.664

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	7	1	-	3	2	-	-	3	2	-	-	3	2	-	-	3	2	1	-	3	2	1	-	3	2	1	-	3	1	5	50
Out	7	1	-	-	3	2	-	-	3	2	-	-	3	2	-	-	3	3	-	-	3	3	-	-	3	3	-	-	3	6	50

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 3 / VG006 - Integrated Common Processor

Footnotes:

⁽¹⁾ FY14 funding began cyclical ICP Tech Refresh of hardware. FY15 funding procured J-AOS Tech Refresh hardware. FY16 and out-year funding continues cyclical ICP Tech Refresh of hardware. NOTE: ICP system configuration varies from ship to ship depending upon the type of arrays used (passive only, or passive and active). Accordingly, the procurement and installation costs will vary from one platform to another, depending on the configuration and the ship. Installation Remarks: FY15 procurement associated with FMS program; installation costs funded by FMS program.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2237 / SURTASS				Modification Number / Title: 4 / VG006 - TL-29A. Twinline Arrays				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	44.687	-	-	24.000	-	24.000	1.785	1.820	1.860	10.418	-	84.570
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	44.687	-	-	24.000	-	24.000	1.785	1.820	1.860	10.418	-	84.570
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	44.687	-	-	24.000	-	24.000	1.785	1.820	1.860	10.418	-	84.570

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TB-29A Twinline is a shallow water variant of the common array produced by NAVSEA. The array consists of 2 shorter array lengths and array support equipment, and is designed for increased surveillance capability in high clutter environments and littoral areas. Six TB-29A Twinline arrays were delivered FY02 - FY07. In FY09, an additional array was procured by converting two TB-29A arrays into one TL-29A array which was delivered in 3QFY10 and was installed at no cost in FY11. Support equipment procurement is for ancillary test sets, array headline and roll control systems, tow cables, and array leader cables. In FY12, an additional TL-29A array was procured; it was delivered in 2QFY14.

Funding is provided in FY17 and FY21 to procure J-AOS TL-29A arrays as part of a cost-sharing agreement. Installation costs will be funded by the FMS program. FY17 funding also procures another TL-29A in order to replace aging TL-29A systems and to be a ready asset in-theater. Funding in FY18-FY21 is also provided to refurbish existing TL-29A array legs.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2237 / SURTASS					Modification Number / Title: 4 / VG006 - TL-29A. Twinline Arrays			
Models of Systems Affected: TL-29A Twinline Arrays					Modification Type: TBD					Related RDT&E PEs: 0204311N			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> VG006 - TL-29A. Twinline Arrays													
B Kits													
Recurring													
1.1.1) J-AOS/U.S. Twinline Arrays - NonOrganic ⁽²⁾	8 / 43.787	- / -	- / -	2 / 24.000	- / -	2 / 24.000	1 / 1.785	1 / 1.820	1 / 1.860	1 / 10.418	- / -	14 / 83.670	
<i>Subtotal: Recurring</i>	- / 43.787	- / -	- / -	- / 24.000	- / -	- / 24.000	- / 1.785	- / 1.820	- / 1.860	- / 10.418	- / -	- / 83.670	
<i>Subtotal: VG006 - TL-29A. Twinline Arrays</i>	8 / 43.787	- / -	- / -	2 / 24.000	- / -	2 / 24.000	1 / 1.785	1 / 1.820	1 / 1.860	1 / 10.418	- / -	14 / 83.670	
<i>Subtotal: Procurement, All Modification Items</i>	- / 43.787	- / -	- / -	- / 24.000	- / -	- / 24.000	- / 1.785	- / 1.820	- / 1.860	- / 10.418	- / -	- / 83.670	
Installation													
<i>Modification Item 1 of 1:</i> VG006 - TL-29A. Twinline Arrays													
<i>Subtotal: Installation</i>	- / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.900	
Total													
Total Cost (Procurement + Support + Installation)	44.687	-	-	24.000	-	24.000	1.785	1.820	1.860	10.418	-	84.570	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 4 / VG006 - TL-29A. Twinline Arrays

Modification Item 1 of 1: VG006 - TL-29A. Twinline Arrays

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 23

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates			Jul 2018	Jul 2019	Jul 2020	Jul 2021	Jul 2022

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 23

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: J-AOS/U.S. Twinline Arrays

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.000	8 / 0.900
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / -	- / -	- / -	- / -	- / -	2 / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	- / -	- / -	- / -	1 / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	- / -	- / -	1 / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	- / -	1 / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / -	1 / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 0.900	- / -	- / -	- / -	- / -	- / -	2 / -	1 / -	1 / -	1 / -	2 / -	14 / 0.900

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	-	-	-	1	-	-	2	14
Out	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	1	-	-	-	1	-	2	14

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 4 / VG006 - TL-29A. Twinline Arrays

Footnotes:
 (2) The TB-29A Twinline is a shallow water variant of the common array produced by NAVSEA. The array consists of 2 shorter array lengths and array support equipment, and is designed for increased surveillance capability in high clutter environments and littoral areas. Six TB-29A Twinline arrays were delivered FY02 - FY07. In FY09, an additional array was procured by converting two TB-29A arrays into one TL-29A array which was delivered in 3QFY10 and was installed at no cost in FY11. In FY12, an additional TL-29A array was procured; The array was delivered in 2QFY14. Support equipment procurement is for ancillary test sets, array headline and roll control systems, tow cable, and leader cables. Installation funding is not required for the support equipment. FY17 funds procurement of TL-29A array to replace aging TL-29A systems and to be a ready asset in-theater. FY17 and FY21 funds procurement of J-AOS TL-29A arrays as part of a cost-sharing agreement. Installation costs for J-AOS arrays will be funded by the FMS program. FY18-FY21 funds refurbishment of one (1) array per year (two legs). Cost Variability: The entire \$6M increase above inflation is related to the J-AOS program. In FY17, a U.S. array was added to the SURTASS budget for \$9M, while a J-AOS TL-29A array upgrade was added for \$15M. The U.S. system being procured is essentially identical to the array procured in FY12 (two array legs WITHOUT associated towing hardware, dry end equipment, or installation costs). For the J-AOS TL-29A procurement, costs are associated with upgrading to a new array type and array support infrastructure, including two complete towed arrays ALONG WITH tow hardware, dry end equipment, and installation costs for two platforms, as well as a third array procured in FY21. The program is funded with both FMS and OPN, and the \$15M in FY17 and \$9.4M in FY21 represent the U.S. share of the total cost of the J-AOS TL-29A upgrade program. Installation Remarks: Installation only occurs on 5 platforms. FY12 array was not installed; it was used as a ready asset in theater as of 2QFY14. Historically, an array is lost or severely damaged every 18 months. Last array was lost Sept 06; last array severely damaged was Jul 14 - this was the array that was being used as a ready asset in theater. Without a ready asset in theater, if an array is lost or damaged, a SURTASS ship cannot deploy and execute its mission. Future assets to be delivered are initially provided as ready assets, and installed as needed.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 5 / VG006 - SURTASS Team Trainer
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	2.000	-	4.590	1.277	-	1.277	4.190	1.750	4.500	1.750	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	2.000	-	4.590	1.277	-	1.277	4.190	1.750	4.500	1.750	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	2.000	-	4.590	1.277	-	1.277	4.190	1.750	4.500	1.750	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The SURTASS Team Trainer (STT) provides SURTASS crews with two high fidelity synthetic and live playback training capabilities to support Home Port Training Periods (HPTP) and Pre-Deployment Certification Periods (PDCP). There are 2 STTs, and Tech Refresh for these trainers begins in FY16. Each trainer will be refreshed on a 4 year cycle. Tech refresh for 1st STT will be in FY16, with installation in the following year. Tech Refresh for 2nd trainer will be in FY18 with installation the following year. Tech refresh for the STTs will continue on this cycle.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2237 / SURTASS					Modification Number / Title: 5 / VG006 - SURTASS Team Trainer			
Models of Systems Affected: SURTASS Team Trainer				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> VG006 - SURTASS Team Trainer													
B Kits													
Recurring													
1.1.1) SURTASS Team Trainer - NonOrganic ⁽³⁾	1 / 1.751	- / -	1 / 4.590	- / -	- / -	- / -	1 / 4.190	- / -	1 / 4.500	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 1.751	- / -	- / 4.590	- / -	- / -	- / -	- / 4.190	- / -	- / 4.500	- / -	Continuing	Continuing	
<i>Subtotal: VG006 - SURTASS Team Trainer</i>	1 / 1.751	- / -	1 / 4.590	- / -	- / -	- / -	1 / 4.190	- / -	1 / 4.500	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.751	- / -	- / 4.590	- / -	- / -	- / -	- / 4.190	- / -	- / 4.500	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> VG006 - SURTASS Team Trainer													
	- / 0.249	- / -	- / -	- / 1.277	- / -	- / 1.277	- / -	- / 1.750	- / -	- / 1.750	- / -	- / 5.026	
<i>Subtotal: Installation</i>	- / 0.249	- / -	- / -	- / 1.277	- / -	- / 1.277	- / -	- / 1.750	- / -	- / 1.750	- / -	- / 5.026	
Total													
Total Cost (Procurement + Support + Installation)	2.000	-	4.590	1.277	-	1.277	4.190	1.750	4.500	1.750	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 5 / VG006 - SURTASS Team Trainer

Modification Item 1 of 1: VG006 - SURTASS Team Trainer

Manufacturer Information

Manufacturer Name: NSWC CD	Manufacturer Location: BETHESDA, MD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 14

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	
Delivery Dates		Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	

Manufacturer Name: Lockheed Martin	Manufacturer Location: VA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 14

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	
Delivery Dates		Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021	

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: SURTASS Team Trainer

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.249
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 1.277	- / -	1 / 1.277	- / -	- / -	- / -	- / -	- / -	1 / 1.277
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.750	- / -	- / -	- / -	1 / 1.750
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.750	- / -	1 / 1.750
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.249	- / -	- / -	1 / 1.277	- / -	1 / 1.277	- / -	1 / 1.750	- / -	1 / 1.750	- / -	4 / 5.026

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 5 / VG006 - SURTASS Team Trainer

Footnotes:

⁽³⁾ The Team Trainer provides SURTASS crews with two high fidelity synthetic and live playback training capabilities to support Home Port Training Periods (HPTP) and Pre-Deployment Certification Periods (PDCP).

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 6 / VG006 - ICP Training Device
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.831	-	-	-	-	-	-	-	-	-	-	5.831
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.831	-	-	-	-	-	-	-	-	-	-	5.831
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.831	-	-	-	-	-	-	-	-	-	-	5.831
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement of ICP Trainers for IUSS School House completed in FY14.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2237 / SURTASS					Modification Number / Title: 6 / VG006 - ICP Training Device			
Models of Systems Affected: ICP Training Device				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> VG006 - ICP Training Device													
B Kits													
Recurring													
1.1.1) ICP Training Device - NonOrganic ⁽⁴⁾	2 / 4.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.600	
<i>Subtotal: Recurring</i>	- / 4.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.600	
<i>Subtotal: VG006 - ICP Training Device</i>	2 / 4.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.600	
<i>Subtotal: Procurement, All Modification Items</i>	- / 4.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.600	
Installation													
<i>Modification Item 1 of 1:</i> VG006 - ICP Training Device													
<i>Subtotal: Installation</i>	- / 1.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.231	
Total													
Total Cost (Procurement + Support + Installation)	5.831	-	-	-	-	-	-	-	-	-	-	5.831	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 6 / VG006 - ICP Training Device

Modification Item 1 of 1: VG006 - ICP Training Device

Manufacturer Information

Manufacturer Name: NSWC CD	Manufacturer Location: BETHESDA, MD
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 19

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 19

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: ICP Training Device

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 1.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 1.231
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 1.231	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.231

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 6 / VG006 - ICP Training Device

Footnotes:

⁽⁴⁾ Procurement of ICP Trainers for IUSS School House completed in FY14.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 7 / VG007 - Field Changes/Modifications
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	10.090	1.082	1.046	1.103	-	1.103	0.611	1.926	1.806	1.275	-	18.939
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	10.090	1.082	1.046	1.103	-	1.103	0.611	1.926	1.806	1.275	-	18.939
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	10.090	1.082	1.046	1.103	-	1.103	0.611	1.926	1.806	1.275	-	18.939

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Field Changes/Modifications for correction of deficiencies identified by Fleet use, array support, communications equipment and replacement of aging/unsupportable equipment.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 7 / VG007 - Field Changes/Modifications

Models of Systems Affected: Field Changes/ Modifications	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> VG007 - Field Changes/Modifications												
B Kits												
Recurring												
1.1.1) Field Changes/Modifications - NonOrganic ⁽⁵⁾	58 / 6.949	5 / 0.731	5 / 0.661	5 / 0.637	- / -	5 / 0.637	5 / 0.290	5 / 1.430	5 / 1.429	5 / 0.928	- / -	93 / 13.055
<i>Subtotal: Recurring</i>	- / 6.949	- / 0.731	- / 0.661	- / 0.637	- / -	- / 0.637	- / 0.290	- / 1.430	- / 1.429	- / 0.928	- / -	- / 13.055
<i>Subtotal: VG007 - Field Changes/Modifications</i>	58 / 6.949	5 / 0.731	5 / 0.661	5 / 0.637	- / -	5 / 0.637	5 / 0.290	5 / 1.430	5 / 1.429	5 / 0.928	- / -	93 / 13.055
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.949	- / 0.731	- / 0.661	- / 0.637	- / -	- / 0.637	- / 0.290	- / 1.430	- / 1.429	- / 0.928	- / -	- / 13.055
Installation												
<i>Modification Item 1 of 1:</i> VG007 - Field Changes/Modifications	- / 3.141	- / 0.351	- / 0.385	- / 0.466	- / -	- / 0.466	- / 0.321	- / 0.496	- / 0.377	- / 0.347	- / -	- / 5.884
<i>Subtotal: Installation</i>	- / 3.141	- / 0.351	- / 0.385	- / 0.466	- / -	- / 0.466	- / 0.321	- / 0.496	- / 0.377	- / 0.347	- / -	- / 5.884
Total												
Total Cost (Procurement + Support + Installation)	10.090	1.082	1.046	1.103	-	1.103	0.611	1.926	1.806	1.275	-	18.939

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 7 / VG007 - Field Changes/Modifications

Modification Item 1 of 1: VG007 - Field Changes/Modifications

Manufacturer Information

Manufacturer Name: SSC PAC	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 10

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Oct 2014	Nov 2015	Nov 2016	Nov 2017	Nov 2018	Nov 2019	
Delivery Dates	Aug 2015	Sep 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2020	

Manufacturer Name: SSC LANT	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 10

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Oct 2014	Nov 2015	Nov 2016	Nov 2017	Nov 2018	Nov 2019	
Delivery Dates	Aug 2015	Sep 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2020	

Manufacturer Name: Lockheed Martin	Manufacturer Location: VA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 10

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Oct 2014	Nov 2015	Nov 2016	Nov 2017	Nov 2018	Nov 2019	
Delivery Dates	Aug 2015	Sep 2016	Sep 2017	Sep 2018	Sep 2019	Sep 2020	

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: Field Changes/Modifications

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	58 / 3.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	58 / 3.141
FY 2015	- / -	5 / 0.351	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.351
FY 2016	- / -	- / -	5 / 0.385	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.385
FY 2017	- / -	- / -	- / -	5 / 0.466	- / -	5 / 0.466	- / -	- / -	- / -	- / -	- / -	5 / 0.466
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.321	- / -	- / -	- / -	- / -	5 / 0.321
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.496	- / -	- / -	- / -	5 / 0.496
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.377	- / -	- / -	5 / 0.377
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.347	- / -	5 / 0.347
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	58 / 3.141	5 / 0.351	5 / 0.385	5 / 0.466	- / -	5 / 0.466	5 / 0.321	5 / 0.496	5 / 0.377	5 / 0.347	- / -	93 / 5.884

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2237 / SURTASS	Modification Number / Title: 7 / VG007 - Field Changes/Modifications

Modification Item 1 of 1: VG007 - Field Changes/Modifications

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: Field Changes/Modifications

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	58	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	93
Out	58	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	-	-	5	-	93

Footnotes:

⁽⁵⁾ Field Changes/Modifications for correction of deficiencies identified by Fleet use, array support, communications equipment and replacement of aging/unsupportable 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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604231N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	62.236	14.390	13.725	-	-	-	-	-	-	-	-	90.351
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	62.236	14.390	13.725	-	-	-	-	-	-	-	-	90.351
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	62.236	14.390	13.725	-	-	-	-	-	-	-	-	90.351

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.526	0.722	0.357	-	0.357	0.876	0.636	0.534	0.544	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Commencing in FY17 this line item is consolidated with OPN LI 2906 (PE 0204660N), to align TacMobile C4I procurements with TacMobile MPRF P-8A Aircraft Support Systems procurements.

Tactical/Mobile (TacMobile) Maritime Patrol and Reconnaissance Force (MPRF) systems : Tactical/Mobile (TacMobile) Maritime Patrol and Reconnaissance Force Systems provide the MPRF commanders with the capability to plan, direct, control and evaluate the tactical operations of MPRF and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land all sensor (e.g., Electro Optical (EO), Infrared (IR), Inverse Synthetic-Aperture Radar (ISAR)) surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, homeland defense, and special operations.

The program includes fixed-site Tactical Operations Centers (TOCs) and Mobile Tactical Operations Centers (MTOCs) or equivalent. Each TacMobile unit is a system-of-systems. TOCs provide sensor and tactical data communications systems; mission planning/mission support, sensor analysis capabilities; avionics and weapons system interfaces, media devices and data handling capabilities, at fixed-site locations. MTOC is a scalable, mobile version of the TOC for contingency operations and for support of operations from remote forward operating airfields.

The TacMobile program uses an evolutionary development strategy consisting of incremental upgrades to meet new and emergent Fleet requirements, while retaining current capabilities. Increments are planned and resourced to support the MPRF Family of Systems aircraft: P-8A Poseidon aircraft and its upgrades; Advanced Airborne Sensor (AAS); and MQ-4C Triton.

9 TOCs: 6 operational systems (located at Jacksonville Florida, Sigonella Italy, Kaneohe Bay Hawaii, Whidbey Island Washington, Kadena Japan, and Bahrain), 1 training system (located at the Center for Naval Air Technical Training (CNATT) Jacksonville Florida), 2 laboratory systems (a communications integration lab located at Space & Naval Warfare Systems Command Systems Center (SSC) Atlantic, and an aircraft integration lab located at SSC Atlantic detachment Patuxent River Maryland).

15 MTOCs: 9 operational systems (homeported at Jacksonville Florida (5 sites), Whidbey Island Washington (2 sites), and Coronado (North Island) California (2 sites)), 1 laboratory system (an aircraft integration lab located at Navy Detachment Dallas), 1 C4I engineering and maintenance support system (located at the In Service Engineering Activity (ISEA), SSC Atlantic), 1 C4I mobile systems schoolhouse (located at the Center for Naval Air Technical Training (CNATT) Jacksonville Florida) and 3 legacy systems awaiting End-to-End refresh/recapitalization to meet current operational configuration/requirements (SSC Lant).

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment		P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604231N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>This line item upgrades TOC/MTOC sensor analysis, mission planning, in-flight mission support capabilities, avionics and weapons system interfaces, computer upgrades and associated software for interfacing, analysis and processing equipment to the supported weapons systems (aircraft). Additionally, the line item upgrades mobility and facilities equipment necessary to power and support the processing equipment and interfaces.</p>		

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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 02: Communications & Electronics Equip / BSA 3: ASW Electronic Equipment

P-1 Line Item Number / Title:
2246 / Maritime Patrol and Reconnaissance Force

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604231N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / BLI 2246 Maritime Patrol & Reconnaissance Force (MPRF) Mission Support Systems	P-5a		- / 50.833	- / 9.529	- / 0.184	- / -	- / -	- / -
P-3a	1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh (Tech Refresh)			- / 7.787	- / -	- / 2.268	- / -	- / -	- / -
P-3a	2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1 (Upgrade)			- / 3.616	- / 4.861	- / 11.273	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 62.236	- / 14.390	- / 13.725	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / BLI 2246 Maritime Patrol & Reconnaissance Force (MPRF) Mission Support Systems	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh (Tech Refresh)			- / -	- / -	- / -	- / -	- / -	- / 10.055
P-3a	2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1 (Upgrade)			- / -	- / -	- / -	- / -	- / -	- / 19.750
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 90.351

*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.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Item Number / Title [DODIC]: 1 / BLI 2246 Maritime Patrol & Reconnaissance Force (MPRF) Mission Support Systems

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)	50.833	9.529	0.184	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	50.833	9.529	0.184	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	50.833	9.529	0.184	-	-	-

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - Maritime Patrol & Reconnaissance Force (MPRF) - WH046 Tactical/Mobile Cost																		
Recurring Cost																		
1.1.1) TOC/MTOC 2.0.1 ^(t)	483.885	26	12.581	292.500	2	0.585	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) TOC/MTOC 2.1 ^(t)	863.667	39	33.683	720.364	11	7.924	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	46.264	-	-	8.509	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Maritime Patrol & Reconnaissance Force (MPRF) - WH046 Tactical/Mobile Cost</i>	-	-	46.264	-	-	8.509	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - WH776 Installation Cost																		
Recurring Cost																		
2.1.1) 2.0.1 Install	-	-	1.747	-	-	0.268	-	-	0.092	-	-	-	-	-	-	-	-	-
2.1.2) 2.1 Install	-	-	2.133	-	-	0.752	-	-	0.092	-	-	-	-	-	-	-	-	-
2.1.3) Shore Pre-Installation Design	-	-	0.689	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	4.569	-	-	1.020	-	-	0.184	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - WH776 Installation Cost</i>	-	-	4.569	-	-	1.020	-	-	0.184	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Item Number / Title [DODIC]: 1 / BLI 2246 Maritime Patrol & Reconnaissance Force (MPRF) Mission Support Systems
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	50.833	-	-	9.529	-	-	0.184	-	-	-	-	-	-	-	-	-

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3			P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force					Item Number / Title [DODIC]: 1 / BLI 2246 Maritime Patrol & Reconnaissance Force (MPRF) Mission Support Systems				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) TOC/MTOC 2.0.1		2015	SSC LANT / Charleston, SC	C / FFP	SSC LANT	Feb 2015	Jun 2015	2	292.500	Y		Sep 2014
1.1.2) TOC/MTOC 2.1		2015	SSC LANT / Charleston, SC	C / FFP	SSC LANT	Feb 2015	Apr 2015	11	720.364	Y		Sep 2014

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force				Modification Number / Title: 1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7.787	-	2.268	-	-	-	-	-	-	-	-	10.055
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	7.787	-	2.268	-	-	-	-	-	-	-	-	10.055
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	7.787	-	2.268	-	-	-	-	-	-	-	-	10.055
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides overarching technical modernization and technical refresh to fielded TacMobile systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3					P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force					Modification Number / Title: 1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh			
Models of Systems Affected: Various				Modification Type: Tech Refresh				Related RDT&E PEs: 0604231N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> BLI 2246 (MPRF) Mission Support Systems - Tech Refresh													
B Kits													
Recurring													
1.1.1) TOC - NonOrganic	2 / 0.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.575	
1.1.2) MTOC - NonOrganic ⁽¹⁾	14 / 6.145	- / -	2 / 2.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 8.413	
<i>Subtotal: Recurring</i>	- / 6.720	- / -	- / 2.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.988	
<i>Subtotal: BLI 2246 (MPRF) Mission Support Systems - Tech Refresh</i>	16 / 6.720	- / -	2 / 2.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 8.988	
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.720	- / -	- / 2.268	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 8.988	
Installation													
<i>Modification Item 1 of 1:</i> BLI 2246 (MPRF) Mission Support Systems - Tech Refresh													
<i>Subtotal: Installation</i>	- / 1.067	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.067	
Total													
Total Cost (Procurement + Support + Installation)	7.787	-	2.268	-	-	-	-	-	-	-	-	10.055	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Modification Number / Title: 1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh

Modification Item 1 of 1: BLI 2246 (MPRF) Mission Support Systems - Tech Refresh

Manufacturer Information							
Manufacturer Name: SSC LANT ⁽²⁾				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 7			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016					
Delivery Dates		Aug 2016					

Installation Information

Method of Implementation: [none specified]:: Installation Name: Tech Refresh Installations

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	16 / 1.067	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	16 / 1.067
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	16 / 1.067	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.067

Installation Schedule																															
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Out	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16

Footnotes:
⁽¹⁾ 1. Quantities represent separate Warfighter Interface, Warfighter Communications, Analysis, and Mobility/Facility components of TacMobile systems. 2. Unit cost represents an average, because TacMobile is a system of systems. Configuration of upgrade and refresh systems to be procured vary by Increment. 3. Install costs vary across fiscal years due to different equipment mixes, site specific requirements, and varied, world-wide locations. 4. FY16 procures overarching MTOC ELEVEN Tech Refresh components. 5. Installation of FY16 procured equipment has been shifted to PE 0204660N LI 2906 as part of the budget line consolidation

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Modification Number / Title: 1 / BLI 2246 (MPRF) Mission Support Systems - Tech Refresh

⁽²⁾ Procurement of equipment for MTOC TR

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force				Modification Number / Title: 2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.616	4.861	11.273	-	-	-	-	-	-	-	-	19.750
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.616	4.861	11.273	-	-	-	-	-	-	-	-	19.750
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.616	4.861	11.273	-	-	-	-	-	-	-	-	19.750
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technical modernization and technical refresh to fielded TacMobile systems necessary to support P-8A Poseidon Increment 2 and MQ-4C Triton Unmanned Aerial System (UAS) at their initial operating capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3				P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force						Modification Number / Title: 2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1			
Models of Systems Affected: N/A				Modification Type: Upgrade				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1													
B Kits													
Recurring													
1.1.1) TOC - NonOrganic ⁽³⁾	3 / 1.639	1 / 1.165	3 / 1.977	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.781	
1.1.2) MTOC - NonOrganic ⁽⁴⁾	4 / 1.655	3 / 3.496	6 / 7.886	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 13.037	
<i>Subtotal: Recurring</i>	- / 3.294	- / 4.661	- / 9.863	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.818	
<i>Subtotal: BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1</i>	7 / 3.294	4 / 4.661	9 / 9.863	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 17.818	
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.294	- / 4.661	- / 9.863	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.818	
Support (All Modification Items)													
2.1) Shore Pre-Installation	- / -	- / 0.200	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400	
<i>Subtotal: Support</i>	- / 0.000	- / 0.200	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.400	
Installation													
<i>Modification Item 1 of 1:</i> BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1	- / 0.322	- / -	- / 1.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.532	
<i>Subtotal: Installation</i>	- / 0.322	- / -	- / 1.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.532	
Total													
Total Cost (Procurement + Support + Installation)	3.616	4.861	11.273	-	-	-	-	-	-	-	-	19.750	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Modification Number / Title: 2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1

Modification Item 1 of 1: BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1

Manufacturer Information							
Manufacturer Name: SSC LANT				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	Jul 2015	Jul 2016					

Installation Information

Method of Implementation: Method:: Installation Name: TR 2.1.1 Installations

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 0.322	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	7 / 0.322
FY 2015	- / -	- / -	4 / 1.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.210
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 0.322	- / -	4 / 1.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.532

Installation Schedule																																
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	7	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Out	7	-	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11

Footnotes:
⁽³⁾ 1. Quantities represent separate Command & Control & Intelligence (C2I), Communications, and Mobility/Facility component system upgrades of TacMobile systems. 2. Unit cost represents an average, because TacMobile is a system of systems. Configuration of upgrade systems to be procured vary by site unique differences. 3. Install costs vary due to different equipment mixes, site specific requirements, and varied, world-wide locations. 4. Installation of FY16 procured equipment has been shifted to PE 0204660N LI 2906 as part of the budget line consolidation

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 3	P-1 Line Item Number / Title: 2246 / Maritime Patrol and Reconnaissance Force	Modification Number / Title: 2 / BLI 2246 (MPRF) Mission Support Systems- Tech Refresh 2.1.1

⁽⁴⁾ 1. Procurement costs for MTOCs vary from year to year due to site specific requirements that require different equipment mixes depending on the current configuration of legacy equipment to be replaced at each site. 2. In addition to the 6 month production lead time, 6 months is required for integration and pre-installation and checkout (PITCO).

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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 02: Communications & Electronics Equip / BSA 4: Electronic Warfare Equipment	P-1 Line Item Number / Title: 2312 / AN/SLQ-32
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0204228N	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	385.923	195.082	296.271	274.892	-	274.892	318.819	379.231	511.281	767.214	1,266.993	4,395.706
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	385.923	195.082	296.271	274.892	-	274.892	318.819	379.231	511.281	767.214	1,266.993	4,395.706
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	385.923	195.082	296.271	274.892	-	274.892	318.819	379.231	511.281	767.214	1,266.993	4,395.706

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	5.168	4.228	1.002	-	1.002	2.064	2.726	8.163	13.915	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/SLQ-32(V) provides a family of modular shipborne electronic warfare equipment which is installed on all surface combatants, aircraft carriers, amphibious ships and auxiliaries in the surface Navy. The system consists of eight configurations and provides early detection, analysis, threat warning and protection from anti-ship missiles.

TC056: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 1

The Surface Electronic Warfare (EW) Improvement Program (SEWIP) will develop a modern, highly capable family of EW systems by block upgrade of the current AN/SLQ-32 system that is robust in detecting and countering current and future threats and will extend the service life of AN/SLQ3-2(V) systems. Funding procures upgrades to the current AN/SLQ-32 system.

Electronic Surveillance Enhancement (ESE) replaces the Digital Processing Unit and Digital Tracking Unit with a modern computer system. This enhanced functionality increases Anti-Ship Missile Defense (ASMD) capabilities by increasing the probability of correct identification of threats. ESE is also being adapted to the unique Aircraft Carrier variant configuration.

Block 1B1: Small Ship Electronic Support Measures System (SSESM) provides Specific Emitter Identification (SEI) capability to various ships/ship classes in a stand-alone configuration. Tech Refresh funding is provided to address obsolescence and reliability issues presenting affecting fielded systems.

Block 1B2: The federated SEI, consisting of SEI hardware plus an ICAD modification kit, fully integrates SEI functionality with the ICAD/Q-70 console. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

Block 1B3: High Gain High Sensitivity (HGHS) Adjunct Sensor is a critical improvement for threat correlation, situational awareness, and extending the battle space. Development Status/Major Development Milestones are: Milestone C/Low-Rate Initial Production (LRIP) 4Q FY12, Full Rate Production (FRP) 4Q FY16. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

TC059: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 2

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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 02: Communications & Electronics Equip / BSA 4: Electronic Warfare Equipment		P-1 Line Item Number / Title: 2312 / AN/SLQ-32
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0204228N	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Block 2 will provide AN/SLQ-32(V) an upgraded antenna, receiver, and combat systems interface. The upgrades will pace the threat, improve detection and accuracy and mitigate Electromagnetic Interference (EMI). Development Status/Major Development Milestones are: Milestone C Low-Rate Initial Production (LRIP) 4Q FY13, Full Rate Production (FRP) 4Q FY16. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems. Block 2 Lite is a variant of the Block 2 specifically tailored for the needs of small ships, such as LCS, OPC and the Fast Frigate, to address fleet emergent needs for a robust, capable, and sustainable EW system, that meets the space, weight and power limitations of these smaller ships.</p> <p>TC060: SURFACE ELECTRONIC WARFARE (EW) IMPROVEMENTS BLOCK 3: Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. The upgrade will provide a common EA capability to all surface combatants (CVN,CG, DDG, LHA) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms. The program builds on the EW Electronic Support (ES) capability delivered by Blocks 1 and 2. Development Status/Major Milestones are: Long Lead Materials will be procured 3Q FY17, Milestone C Low-Rate Initial Production (LRIP) 3Q FY 18, IOT&E, 3/4Q FY20, FRP is Q1/Q2 FY21.</p> <p>Block 3T (AN/SLQ-59) will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ32(V) system to keep pace with the threat. Block 3T provides initial, limited interim capability of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to meet an urgent operational needs statement.</p> <p>TC5IN: FMP INSTALLATIONS Shipboard installation of AN/SLQ-32(V) ECP/Field Changes and the Surface EW Improvements Blocks 1, 2 and 3.</p> <p>TC6IN: NON-FMP INSTALLATIONS Installation of AN/SLQ-32(V) ECP/Field Changes and the Surface EW Improvements Blocks 1, 2 and 3 at Shore Site Facilities.</p>		

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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 02: Communications & Electronics Equip / BSA 4: Electronic Warfare Equipment

P-1 Line Item Number / Title:
2312 / AN/SLQ-32

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0204228N **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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / TC056 - BLOCK 1B1 SSES (SHIPALT/AIT)			- / 42.804	- / -	- / 1.202	- / 0.796	- / -	- / 0.796
P-3a	2 / TC056 - BLOCK 1B2 FEDERATED SEI (SHIPALT/AIT)			- / 58.788	- / 0.663	- / 0.027	- / 1.951	- / -	- / 1.951
P-3a	3 / TC056 - BLOCK 1B3 HGHS (SHIPALT/AIT)			- / 39.047	- / 15.807	- / 15.668	- / 20.517	- / -	- / 20.517
P-3a	4 / TC056 - BLOCK 1 ESE (SHIPALT/AIT)			- / 42.973	- / 2.160	- / -	- / -	- / -	- / -
P-3a	5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM (SHIPALT/AIT)			- / 186.911	- / 169.498	- / 222.673	- / 154.517	- / -	- / 154.517
P-3a	6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM (SHIPALT/AIT)			- / 0.000	- / -	- / -	- / 50.675	- / -	- / 50.675
P-3a	7 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System (SHIPALT/AIT)			- / 15.400	- / 6.954	- / 56.701	- / 46.436	- / -	- / 46.436
P-40	Total Gross/Weapon System Cost			- / 385.923	- / 195.082	- / 296.271	- / 274.892	- / -	- / 274.892

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / TC056 - BLOCK 1B1 SSES (SHIPALT/AIT)			- / 0.946	- / -	- / -	- / -	- / -	- / 45.748
P-3a	2 / TC056 - BLOCK 1B2 FEDERATED SEI (SHIPALT/AIT)			- / 1.693	- / 2.037	- / 2.380	- / 1.782	- / 8.352	- / 77.673
P-3a	3 / TC056 - BLOCK 1B3 HGHS (SHIPALT/AIT)			- / 21.756	- / 22.864	- / 25.392	- / 25.483	- / 30.539	- / 217.073
P-3a	4 / TC056 - BLOCK 1 ESE (SHIPALT/AIT)			- / -	- / -	- / -	- / -	- / -	- / 45.133
P-3a	5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM (SHIPALT/AIT)			- / 193.528	- / 221.391	- / 247.858	- / 248.918	- / 180.959	- / 1,826.253
P-3a	6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM (SHIPALT/AIT)			- / 92.967	- / 132.939	- / 235.651	- / 491.031	- / 1,047.143	- / 2,050.406
P-3a	7 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System (SHIPALT/AIT)			- / 7.929	- / -	- / -	- / -	- / -	- / 133.420
P-40	Total Gross/Weapon System Cost			- / 318.819	- / 379.231	- / 511.281	- / 767.214	- / 1,266.993	- / 4,395.706

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

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

Justification:
FY 2016 funding request reflect reductions of \$1.178 million for Block 1B3 excess installation funding, \$9.488 million for block 1B3 contract delays, and \$17.789 million Block 2 excess installation funding.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 1 / TC056 - BLOCK 1B1 SSES
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	42.804	-	1.202	0.796	-	0.796	0.946	-	-	-	-	45.748
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	42.804	-	1.202	0.796	-	0.796	0.946	-	-	-	-	45.748
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	42.804	-	1.202	0.796	-	0.796	0.946	-	-	-	-	45.748
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Small Ship Electronic Support Measures System (SSES) provides Specific Emitter Identification (SEI) capability to various ships/ship classes in a stand-alone configuration. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4					P-1 Line Item Number / Title: 2312 / AN/SLQ-32					Modification Number / Title: 1 / TC056 - BLOCK 1B1 SSES			
Models of Systems Affected: TC056 SURFACE EW IMPROVEMENTS BLOCK 1: BLOCK 1B1 - SSES					Modification Type: SHIPALT/AIT					Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: TC056 - BLOCK 1B1 SSES</i>													
B Kits													
Recurring													
1.1.1) CNSG EQUIPMENT - NonOrganic ⁽¹⁾	15 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / -	
1.1.2) FMP SHIP UNITS (Field Change) - NonOrganic	52 / 18.111	- / -	33 / 0.099	37 / 0.111	- / -	37 / 0.111	44 / 0.132	- / -	- / -	- / -	- / -	166 / 18.453	
<i>Subtotal: Recurring</i>	<i>- / 18.111</i>	<i>- / -</i>	<i>- / 0.099</i>	<i>- / 0.111</i>	<i>- / -</i>	<i>- / 0.111</i>	<i>- / 0.132</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 18.453</i>	
<i>Subtotal: TC056 - BLOCK 1B1 SSES</i>	<i>67 / 18.111</i>	<i>- / -</i>	<i>33 / 0.099</i>	<i>37 / 0.111</i>	<i>- / -</i>	<i>37 / 0.111</i>	<i>44 / 0.132</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>181 / 18.453</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 18.111</i>	<i>- / -</i>	<i>- / 0.099</i>	<i>- / 0.111</i>	<i>- / -</i>	<i>- / 0.111</i>	<i>- / 0.132</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 18.453</i>	
Support (All Modification Items)													
2.1) Production Support	- / 18.704	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.704	
2.2) Tech Refresh ⁽²⁾	- / 2.987	- / -	- / 0.492	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.479	
<i>Subtotal: Support</i>	<i>- / 11.691</i>	<i>- / -</i>	<i>- / 0.492</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 12.183</i>	
Installation													
<i>Modification Item 1 of 1: TC056 - BLOCK 1B1 SSES</i>	<i>- / 13.002</i>	<i>- / -</i>	<i>- / 0.611</i>	<i>- / 0.685</i>	<i>- / -</i>	<i>- / 0.685</i>	<i>- / 0.814</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 15.112</i>	
<i>Subtotal: Installation</i>	<i>- / 13.002</i>	<i>- / -</i>	<i>- / 0.611</i>	<i>- / 0.685</i>	<i>- / -</i>	<i>- / 0.685</i>	<i>- / 0.814</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 15.112</i>	
Total													
Total Cost (Procurement + Support + Installation)	42.804	-	1.202	0.796	-	0.796	0.946	-	-	-	-	45.748	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 1 / TC056 - BLOCK 1B1 SSES

Modification Item 1 of 1: TC056 - BLOCK 1B1 SSES

Manufacturer Information

Manufacturer Name: General Dynamics AIS	Manufacturer Location: Fair Lakes VA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017	Jan 2018			
Delivery Dates		Apr 2016	Apr 2017	Apr 2018			

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: CNSG EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	15 / 2.206	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	15 / 2.206
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	15 / 2.206	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 2.206

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Out	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS (Field Change)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	52 / 10.796	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	52 / 10.796
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 1 / TC056 - BLOCK 1B1 SSES

Modification Item 1 of 1: TC056 - BLOCK 1B1 SSES

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS (Field Change)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	33 / 0.611	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 0.611
FY 2017	- / -	- / -	- / -	37 / 0.685	- / -	37 / 0.685	- / -	- / -	- / -	- / -	- / -	37 / 0.685
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	44 / 0.814	- / -	- / -	- / -	- / -	44 / 0.814
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	52 / 10.796	- / -	33 / 0.611	37 / 0.685	- / -	37 / 0.685	44 / 0.814	- / -	- / -	- / -	- / -	166 / 12.906

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	52	-	-	-	-	-	-	16	17	-	-	18	19	-	-	22	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Out	52	-	-	-	-	-	-	-	16	17	-	-	18	19	-	-	22	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Footnotes:

(1) Fifteen (15) units procured by Chief Naval Security Group (CNSG)

(2) Additional Tech Refresh procurements are required in FY16-FY18 to implement tech refresh changes. The Tech Refresh hardware consists of circuit cards and an Operating System update. The tech refresh applies to all in-service CG, DDG, and Amphibious ships with SEI systems (114 ships).

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4				P-1 Line Item Number / Title: 2312 / AN/SLQ-32				Modification Number / Title: 2 / TC056 - BLOCK 1B2 FEDERATED SEI				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	58.788	0.663	0.027	1.951	-	1.951	1.693	2.037	2.380	1.782	8.352	77.673
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	58.788	0.663	0.027	1.951	-	1.951	1.693	2.037	2.380	1.782	8.352	77.673
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	58.788	0.663	0.027	1.951	-	1.951	1.693	2.037	2.380	1.782	8.352	77.673
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The federated SEI, consisting of SEI hardware plus an ICAD modification kit, fully integrates SEI functionality with the ICAD/Q-70 console. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 2 / TC056 - BLOCK 1B2 FEDERATED SEI

Models of Systems Affected: TC056 SURFACE EW IMPROVEMENTS BLOCK 1: BLOCK 1B2 - FEDERATED SEI	Modification Type: SHIPALT/AIT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: TC056 - BLOCK 1B2 FEDERATED SEI												
B Kits												
Recurring												
1.1.1) FMP SHIP UNITS - NonOrganic	60 / 27.558	- / -	- / -	3 / 1.110	- / -	3 / 1.110	3 / 1.110	2 / 0.740	4 / 1.484	3 / 1.152	7 / 3.113	82 / 36.267
1.1.2) NON-FMP SHORE SITE UNITS - NonOrganic	2 / 0.682	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.682
Subtotal: Recurring	- / 28.240	- / -	- / -	- / 1.110	- / -	- / 1.110	- / 1.110	- / 0.740	- / 1.484	- / 1.152	- / 3.113	- / 36.949
Subtotal: TC056 - BLOCK 1B2 FEDERATED SEI	62 / 28.240	- / -	- / -	3 / 1.110	- / -	3 / 1.110	3 / 1.110	2 / 0.740	4 / 1.484	3 / 1.152	7 / 3.113	84 / 36.949
Subtotal: Procurement, All Modification Items	- / 28.240	- / -	- / -	- / 1.110	- / -	- / 1.110	- / 1.110	- / 0.740	- / 1.484	- / 1.152	- / 3.113	- / 36.949

Support (All Modification Items)

2.1) Production Support ⁽³⁾	- / 7.935	- / -	- / -	- / 0.120	- / -	- / 0.120	- / 0.122	- / 0.125	- / 0.127	- / 0.130	- / -	- / 8.559
2.2) Tech Refresh	- / 4.398	- / 0.649	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.029	- / 5.076
Subtotal: Support	- / 12.333	- / 0.649	- / -	- / 0.120	- / -	- / 0.120	- / 0.122	- / 0.125	- / 0.127	- / 0.130	- / 0.029	- / 13.635

Installation

Modification Item 1 of 1: TC056 - BLOCK 1B2 FEDERATED SEI	- / 18.215	- / 0.014	- / 0.027	- / 0.721	- / -	- / 0.721	- / 0.461	- / 1.172	- / 0.769	- / 0.500	- / 5.210	- / 27.089
Subtotal: Installation	- / 18.215	- / 0.014	- / 0.027	- / 0.721	- / -	- / 0.721	- / 0.461	- / 1.172	- / 0.769	- / 0.500	- / 5.210	- / 27.089

Total												
Total Cost (Procurement + Support + Installation)	58.788	0.663	0.027	1.951	-	1.951	1.693	2.037	2.380	1.782	8.352	77.673

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 2 / TC056 - BLOCK 1B2 FEDERATED SEI

Modification Item 1 of 1: TC056 - BLOCK 1B2 FEDERATED SEI

Manufacturer Information

Manufacturer Name: General Dynamics AIS	Manufacturer Location: Fair Lakes, VA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 8

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

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	60 / 17.779	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	60 / 17.779
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / 0.014	- / 0.027	2 / 0.679	- / -	2 / 0.679	1 / 0.332	- / -	- / -	- / -	- / -	3 / 1.052
FY 2018	- / -	- / -	- / -	- / 0.042	- / -	- / 0.042	- / 0.117	3 / 1.074	- / -	- / -	- / -	3 / 1.233
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.012	- / 0.085	2 / 0.699	- / -	- / -	2 / 0.796
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.013	- / 0.060	1 / 0.440	3 / 1.089	4 / 1.602
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.010	- / 0.060	3 / 1.188	3 / 1.258
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.933	7 / 2.933
Total	60 / 17.779	- / 0.014	- / 0.027	2 / 0.721	- / -	2 / 0.721	1 / 0.461	3 / 1.172	2 / 0.769	1 / 0.500	13 / 5.210	82 / 26.653

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	60	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	3	-	-	2	-	-	-	1	-	13	82
Out	60	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	-	-	-	-	3	-	-	2	-	-	-	1	13	82

Method of Implementation: [none specified]:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 0.436	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 0.436

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 2 / TC056 - BLOCK 1B2 FEDERATED SEI

Modification Item 1 of 1: TC056 - BLOCK 1B2 FEDERATED SEI

Installation Information

Method of Implementation: [none specified]:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 0.436	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.436

Installation Schedule

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

Footnotes:

⁽³⁾ Additional SEWIP Block 1B2 procurements are required to fully outfit SEWIP Block 2 installations. Additional SEWIP Block 1B2 procurements support ships scheduled for SEWIP Block 2 installations that do not have an SEI subsystem. Procurement of SEI units are driven by AN/SLQ-32(V)6 - SEWIP Block 2 & SEWIP Block 1B3 & SEWIP Block 1B2 - system integration dates.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 3 / TC056 - BLOCK 1B3 HGHS
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	39.047	15.807	15.668	20.517	-	20.517	21.756	22.864	25.392	25.483	30.539	217.073
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	39.047	15.807	15.668	20.517	-	20.517	21.756	22.864	25.392	25.483	30.539	217.073
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	39.047	15.807	15.668	20.517	-	20.517	21.756	22.864	25.392	25.483	30.539	217.073
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

High Gain High Sensitivity (HGHS) Adjunct Sensor is a critical improvement for threat correlation, situational awareness, and extending the battle space. Development Status/Major Development Milestones are: Milestone C/Low-Rate Initial Production (LRIP) 4Q FY12, Full Rate Production (FRP) 4Q FY16. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4 **P-1 Line Item Number / Title:** 2312 / AN/SLQ-32 **Modification Number / Title:** 3 / TC056 - BLOCK 1B3 HGHS

Models of Systems Affected: TC056 SURFACE EW IMPROVEMENTS BLOCK 1 - BLOCK 1B3 HGHS **Modification Type:** SHIPALT/AIT **Related RDT&E PEs:** 0604757N

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> TC056 - BLOCK 1B3 HGHS												
B Kits												
Recurring												
1.1.1) FMP BLOCK 1B3 - NonOrganic ⁽⁴⁾	15 / 22.106	14 / 10.864	10 / 7.430	14 / 9.870	- / -	14 / 9.870	13 / 9.048	17 / 11.764	18 / 12.456	19 / 13.148	- / -	120 / 96.686
1.1.2) NON-FMP BLOCK 1B3 SHORE SITE - NonOrganic	5 / 7.245	- / -	1 / 0.743	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 7.988
1.1.3) BLK 1B3 GFE UNIT FOR BLK 3 OEM - NonOrganic	1 / 1.301	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.301
<i>Subtotal: Recurring</i>	- / 30.652	- / 10.864	- / 8.173	- / 9.870	- / -	- / 9.870	- / 9.048	- / 11.764	- / 12.456	- / 13.148	- / -	- / 105.975
<i>Subtotal: TC056 - BLOCK 1B3 HGHS</i>	21 / 30.652	14 / 10.864	11 / 8.173	14 / 9.870	- / -	14 / 9.870	13 / 9.048	17 / 11.764	18 / 12.456	19 / 13.148	- / -	127 / 105.975
<i>Subtotal: Procurement, All Modification Items</i>	- / 30.652	- / 10.864	- / 8.173	- / 9.870	- / -	- / 9.870	- / 9.048	- / 11.764	- / 12.456	- / 13.148	- / -	- / 105.975
Support (All Modification Items)												
2.1) Production Support	- / 6.391	- / 1.974	- / 1.604	- / 2.188	- / -	- / 2.188	- / 1.292	- / 1.893	- / 1.800	- / 2.669	- / 1.500	- / 21.311
2.2) Tech Refresh	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.989	- / 4.989
2.3) Engineering Change Proposals (ECPs)	- / -	- / -	- / 0.489	- / 0.137	- / -	- / 0.137	- / 0.126	- / 0.164	- / 0.173	- / 0.183	- / -	- / 1.272
<i>Subtotal: Support</i>	- / 6.391	- / 1.974	- / 2.093	- / 2.325	- / -	- / 2.325	- / 1.418	- / 2.057	- / 1.973	- / 2.852	- / 6.489	- / 27.572
Installation												
<i>Modification Item 1 of 1:</i> TC056 - BLOCK 1B3 HGHS	- / 2.004	- / 2.969	- / 5.402	- / 8.322	- / -	- / 8.322	- / 11.290	- / 9.043	- / 10.963	- / 9.483	- / 24.050	- / 83.526
<i>Subtotal: Installation</i>	- / 2.004	- / 2.969	- / 5.402	- / 8.322	- / -	- / 8.322	- / 11.290	- / 9.043	- / 10.963	- / 9.483	- / 24.050	- / 83.526
Total												
Total Cost (Procurement + Support + Installation)	39.047	15.807	15.668	20.517	-	20.517	21.756	22.864	25.392	25.483	30.539	217.073

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 3 / TC056 - BLOCK 1B3 HGHS

Modification Item 1 of 1: TC056 - BLOCK 1B3 HGHS

Manufacturer Information

Manufacturer Name: LOCKHEED MARTIN	Manufacturer Location: SYRACUSE, NY
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 15

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2015	Aug 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Mar 2017	Nov 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP BLOCK 1B3

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 2.004	4 / 2.096	6 / 3.924	5 / 2.905	- / 0.000	5 / 2.905	- / -	- / -	- / -	- / -	- / 0.000	15 / 10.929
FY 2015	- / -	- / 0.033	- / 0.582	8 / 4.672	- / -	8 / 4.672	6 / 3.576	- / -	- / -	- / -	- / -	14 / 8.863
FY 2016	- / -	- / -	- / 0.169	- / 0.548	- / -	- / 0.548	10 / 5.960	- / -	- / -	- / -	- / -	10 / 6.677
FY 2017	- / -	- / -	- / 0.007	- / 0.197	- / -	- / 0.197	1 / 1.346	13 / 7.878	- / -	- / -	- / -	14 / 9.428
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.157	- / 0.794	13 / 8.112	- / -	- / -	13 / 9.063
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.031	- / 0.371	4 / 2.731	13 / 8.736	- / -	17 / 11.869
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.120	- / 0.747	18 / 11.700	18 / 12.567
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 12.350	19 / 12.350
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 2.004	4 / 2.129	6 / 4.682	13 / 8.322	- / -	13 / 8.322	17 / 11.070	13 / 9.043	17 / 10.963	13 / 9.483	37 / 24.050	120 / 81.746

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	3	1	1	-	3	2	2	-	4	7	-	7	2	8	3	4	6	-	6	5	2	4	6	2	5	-	37	120
Out	-	-	-	-	3	1	1	-	3	2	2	-	4	7	-	7	2	8	3	4	6	-	6	5	2	4	6	2	5	37	120

Method of Implementation: AIT:: Installation Name: NON-FMP BLOCK 1B3 SHORE SITE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 0.840	3 / 0.540	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5 / 1.380
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 3 / TC056 - BLOCK 1B3 HGHS

Modification Item 1 of 1: TC056 - BLOCK 1B3 HGHS

Installation Information

Method of Implementation: AIT:: Installation Name: NON-FMP BLOCK 1B3 SHORE SITE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.220	- / -	- / -	- / -	- / -	1 / 0.220
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 0.840	3 / 0.540	- / -	- / -	- / -	1 / 0.220	- / -	- / -	- / -	- / -	6 / 1.600

Installation Schedule

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

Method of Implementation: AIT:: Installation Name: BLK 1B3 GFE UNIT FOR BLK 3 OEM

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	1 / 0.180	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.180
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	1 / 0.180	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.180

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 3 / TC056 - BLOCK 1B3 HGHS
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Modification Item 1 of 1: TC056 - BLOCK 1B3 HGHS

Installation Information

Method of Implementation: AIT:: Installation Name: BLK 1B3 GFE UNIT FOR BLK 3 OEM

Installation Schedule

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

Footnotes:

⁽⁴⁾ Note 1: FY15-FY19 SEWIP Block 1B3 HW procurement prices reflect actual FY15 contract prices. Note 2: Installation cost estimates have been revised to reflect that SEWIP Block 1B3 systems require Planning Yard DSA funds one (1) and two (2) years prior to installation. Note 3: The FY15-19 production contract was originally awarded in June 2015 but the award was protested to GAO. GAO upheld the protest and the subsequent contract was awarded in Dec 2015. Note 4: FY2016 funding request reflect congressional reduction of \$10.666 million for contract delays (\$9.488 million) and excess installation funding (\$1.178 million).

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 4 / TC056 - BLOCK 1 ESE
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	42.973	2.160	-	-	-	-	-	-	-	-	-	45.133
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	42.973	2.160	-	-	-	-	-	-	-	-	-	45.133
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	42.973	2.160	-	-	-	-	-	-	-	-	-	45.133

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Electronic Surveillance Enhancement (ESE) replaces the Digital Processing Unit and Digital Tracking Unit with a modern computer system. This enhanced functionality increases AntiShip Missile Defense (ASMD) capabilities by increasing the probability of correct identification of threats. ESE is also being adapted to the unique Aircraft Carrier variant configuration.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4					P-1 Line Item Number / Title: 2312 / AN/SLQ-32					Modification Number / Title: 4 / TC056 - BLOCK 1 ESE			
Models of Systems Affected: SURFACE EW IMPROVEMENTS BLOCK 1 ESE					Modification Type: SHIPALT/AIT					Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1:</i> TC056 - BLOCK 1 ESE													
B Kits													
Recurring													
1.1.1) FMP SHIP UNITS W/BLK 1A ICAD-Q70 - NonOrganic	26 / 2.668	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 2.668	
1.1.2) FMP SHIP UNITS - NonOrganic	103 / 20.851	2 / 1.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 21.952	
1.1.3) NON-FMP SHORE SITE UNITS - NonOrganic	35 / 7.002	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 7.002	
<i>Subtotal: Recurring</i>	- / 30.521	- / 1.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.622	
<i>Subtotal: TC056 - BLOCK 1 ESE</i>	164 / 30.521	2 / 1.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	166 / 31.622	
<i>Subtotal: Procurement, All Modification Items</i>	- / 30.521	- / 1.101	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 31.622	
Support (All Modification Items)													
2.1) Production Support	- / 6.454	- / 0.466	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.920	
<i>Subtotal: Support</i>	- / 6.454	- / 0.466	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.920	
Installation													
<i>Modification Item 1 of 1:</i> TC056 - BLOCK 1 ESE	- / 5.998	- / 0.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.591	
<i>Subtotal: Installation</i>	- / 5.998	- / 0.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.591	
Total													
Total Cost (Procurement + Support + Installation)	42.973	2.160	-	-	-	-	-	-	-	-	-	45.133	

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 4 / TC056 - BLOCK 1 ESE
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Modification Item 1 of 1: TC056 - BLOCK 1 ESE

Manufacturer Information

Manufacturer Name: Northrop Grumman ⁽⁵⁾	Manufacturer Location: Goleta, CA
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Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 6
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Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014						
Delivery Dates	Jul 2015						

Installation Information

Method of Implementation: SHIPALTS/AIT:: Installation Name: FMP SHIP UNITS W/BLK 1A ICAD-Q70

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	26 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	26 / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	26 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / -

Installation Schedule

PYS	In	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	103 / 4.637	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	103 / 4.637
FY 2015	0 / 0.072	2 / 0.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.665

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 4 / TC056 - BLOCK 1 ESE

Modification Item 1 of 1: TC056 - BLOCK 1 ESE

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	103 / 4.709	2 / 0.593	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	105 / 5.302

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	103	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105
Out	103	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	105

Method of Implementation: AIT:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	35 / 1.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	35 / 1.289
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	35 / 1.289	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 1.289

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 4 / TC056 - BLOCK 1 ESE
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Modification Item 1 of 1: TC056 - BLOCK 1 ESE

Installation Information

Method of Implementation: AIT:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35
Out	34	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35

Footnotes:

⁽⁵⁾ Production Lead Time 3-6 months

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4				P-1 Line Item Number / Title: 2312 / AN/SLQ-32				Modification Number / Title: 5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	186.911	169.498	222.673	154.517	-	154.517	193.528	221.391	247.858	248.918	180.959	1,826.253
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	186.911	169.498	222.673	154.517	-	154.517	193.528	221.391	247.858	248.918	180.959	1,826.253
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	186.911	169.498	222.673	154.517	-	154.517	193.528	221.391	247.858	248.918	180.959	1,826.253
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Block 2 will provide AN/SLQ-32(V) an upgraded antenna, receiver, and combat systems interface. The upgrades will pace the threat, improve detection and accuracy and mitigate Electromagnetic Interference (EMI). Development Status/Major Development Milestones are: Milestone C Low-Rate Initial Production (LRIP) 2Q FY13, Full Rate Production (FRP) 4Q FY16. Engineering Change Proposal (ECP) funding is provided to support changes resulting from software and hardware trouble reports from production, shipboard installations and/or land based testing. Tech Refresh funding is provided to address obsolescence and reliability issues affecting fielded systems. Block 2 Lite is a variant of the Block 2 specifically tailored for the needs of small ships, such as LCS, OPC and the Fast Frigate, to address fleet emergent needs for a robust, capable, and sustainable EW system, that meets the space, weight and power limitations of these smaller ships.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Models of Systems Affected: TC059 SURFACE EW IMPROVEMENTS BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM	Modification Type: SHIPALT/AIT	Related RDT&E PEs: 0604757N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM												
B Kits												
Recurring												
1.1.1) FMP BLK2 SHIP UNITS - NonOrganic ⁽⁶⁾	12 / 137.655	11 / 128.122	19 / 176.700	11 / 104.500	- / -	11 / 104.500	13 / 128.700	17 / 166.600	18 / 183.600	19 / 191.900	- / -	120 / 1,217.777
1.1.2) FMP BLK2 LITE SHIP UNITS - NonOrganic	- / -	1 / 7.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.178
1.1.3) NON-FMP BLK2 SHORE SITE UNITS - NonOrganic	5 / 35.577	- / -	1 / 9.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 44.877
1.1.4) NON-FMP BLK2 LITE SHORE UNIT - NonOrganic	- / -	1 / 6.438	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.438
Subtotal: Recurring	- / 173.232	- / 141.738	- / 186.000	- / 104.500	- / -	- / 104.500	- / 128.700	- / 166.600	- / 183.600	- / 191.900	- / -	- / 1,276.270
Subtotal: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM	17 / 173.232	13 / 141.738	20 / 186.000	11 / 104.500	- / -	11 / 104.500	13 / 128.700	17 / 166.600	18 / 183.600	19 / 191.900	- / -	128 / 1,276.270
Subtotal: Procurement, All Modification Items	- / 173.232	- / 141.738	- / 186.000	- / 104.500	- / -	- / 104.500	- / 128.700	- / 166.600	- / 183.600	- / 191.900	- / -	- / 1,276.270

Support (All Modification Items)

2.1) Production Support	- / 8.619	- / 8.543	- / 9.584	- / 4.219	- / -	- / 4.219	- / 8.663	- / 7.978	- / 5.748	- / 7.307	- / 5.235	- / 65.896
2.2) Tech Refresh	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.301	- / 51.002	- / 54.303
2.3) Engineering Change Proposals (ECPs)	- / -	- / 1.775	- / 1.599	- / 1.453	- / -	- / 1.453	- / 1.789	- / 2.316	- / 2.552	- / 2.667	- / 1.215	- / 15.366
Subtotal: Support	- / 8.619	- / 10.318	- / 11.183	- / 5.672	- / -	- / 5.672	- / 10.452	- / 10.294	- / 8.300	- / 13.275	- / 57.452	- / 135.565

Installation

Modification Item 1 of 1: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM	- / 5.060	- / 17.442	- / 25.490	- / 44.345	- / -	- / 44.345	- / 54.376	- / 44.497	- / 55.958	- / 43.743	- / 123.507	- / 414.418
Subtotal: Installation	- / 5.060	- / 17.442	- / 25.490	- / 44.345	- / -	- / 44.345	- / 54.376	- / 44.497	- / 55.958	- / 43.743	- / 123.507	- / 414.418

Total

Total Cost (Procurement + Support + Installation)	186.911	169.498	222.673	154.517	-	154.517	193.528	221.391	247.858	248.918	180.959	1,826.253
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UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Modification Item 1 of 1: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 17

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jul 2015	May 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Apr 2017	Sep 2017	Aug 2018	Aug 2019	Aug 2020	Aug 2021	Aug 2022

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP BLK2 SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 5.060	4 / 15.476	6 / 18.858	2 / 5.766	- / 0.000	2 / 5.766	- / -	- / -	- / -	- / -	- / 0.000	12 / 45.160
FY 2015	- / -	- / 0.116	- / 3.306	11 / 32.236	- / -	11 / 32.236	- / -	- / -	- / -	- / -	- / -	11 / 35.658
FY 2016	- / -	- / -	- / 0.613	- / 4.318	- / -	- / 4.318	17 / 49.793	2 / 6.064	- / -	- / -	- / -	19 / 60.788
FY 2017	- / -	- / -	- / -	- / 0.411	- / -	- / 0.411	- / 3.079	11 / 33.352	- / -	- / -	- / -	11 / 36.842
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.494	- / 3.658	13 / 40.287	- / -	- / -	13 / 44.439
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.152	- / 1.423	4 / 15.292	13 / 41.119	- / -	17 / 57.986
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.379	- / 2.624	18 / 58.356	18 / 61.359
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 65.151	19 / 65.151
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 5.060	4 / 15.592	6 / 22.777	13 / 42.731	- / -	13 / 42.731	17 / 53.518	13 / 44.497	17 / 55.958	13 / 43.743	37 / 123.507	120 / 407.383

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	3	1	1	-	3	2	2	-	4	7	-	7	2	8	3	4	6	-	6	5	2	4	6	2	5	-	37	120
Out	-	-	-	-	3	1	1	-	3	2	2	-	4	7	-	7	2	8	3	4	6	-	6	5	2	4	6	2	5	37	120

Method of Implementation: [none specified]:: Installation Name: FMP BLK2 LITE SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Modification Item 1 of 1: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Installation Information

Method of Implementation: [none specified]:: Installation Name: FMP BLK2 LITE SHIP UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / 0.010	1 / 0.829	- / -	1 / 0.829	- / -	- / -	- / -	- / -	- / -	1 / 0.839
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / 0.010	1 / 0.829	- / -	1 / 0.829	- / -	- / -	- / -	- / -	- / -	1 / 0.839

Installation Schedule

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

Method of Implementation: AIT:: Installation Name: NON-FMP BLK2 SHORE SITE UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 1.850	3 / 2.703	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5 / 4.553
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.858	- / -	- / -	- / -	- / -	1 / 0.858
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 1.850	3 / 2.703	- / -	- / -	- / -	1 / 0.858	- / -	- / -	- / -	- / -	6 / 5.411

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 5 / TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Modification Item 1 of 1: TC059 - BLOCK 2 ELECTRONIC SUPPORT (ES) SYSTEM

Installation Information

Method of Implementation: AIT:: Installation Name: NON-FMP BLK2 SHORE SITE UNITS

Installation Schedule

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

Method of Implementation: [none specified]:: Installation Name: NON-FMP BLK2 LITE SHORE UNIT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	1 / 0.785	- / -	1 / 0.785	- / -	- / -	- / -	- / -	- / -	1 / 0.785
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.785	- / -	1 / 0.785	- / -	- / -	- / -	- / -	- / -	1 / 0.785

Installation Schedule

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

Footnotes:

⁽⁶⁾ Note 1: Block 2 HW procurement prices reflect actual FY15 contract prices. FY16-FY21 Block 2 HW procurement prices have been revised based upon an updated cost estimating methodology. Note 2: Installation cost estimates have been revised to reflect that SEWIP Block 2 systems require Planning Yard DSA funds one (1) and two (2) years prior to installation. Note 3: FY 2016 funding request reflect congressional reduction of \$17.789M for Block 2 excess installation funding.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4				P-1 Line Item Number / Title: 2312 / AN/SLQ-32				Modification Number / Title: 6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	50.675	-	50.675	92.967	132.939	235.651	491.031	1,047.143	2,050.406
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	50.675	-	50.675	92.967	132.939	235.651	491.031	1,047.143	2,050.406
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	50.675	-	50.675	92.967	132.939	235.651	491.031	1,047.143	2,050.406
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Block 3 will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ-32(V) system to keep pace with the threat. The upgrade will provide a common EA capability to all surface combatants (CVN,CG, DDG, LHD) outfitted with the active variant of the AN/SLQ-32, mainly the (V)3 and (V)4, as well as select new-construction platforms. The program builds on the EW Electronic Support (ES) capability delivered by Blocks 1 and 2. Development Status/Major Milestones are: Long Lead Material will be procured ahead of LRIP units in 3Q FY17. The remainder of the units will be awarded at MS C 3Q FY18. Milestone C Low-Rate Initial Production (LRIP) 3Q FY 18, IOT&E, 3/4Q FY20, FRP is Q1/Q2 FY21.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Models of Systems Affected: TC060 SURFACE EW IMPROVEMENTS BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM	Modification Type: SHIPALT/AIT	Related RDT&E PEs: 0604757N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM												
B Kits												
Recurring												
1.1.1) FMP SHIP UNITS (LARGE RCS) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	1 / 24.604	2 / 50.192	2 / 51.196	3 / 78.330	4 / 103.852	12 / 308.174
1.1.2) FMP SHIP UNITS (SMALL RCS) - NonOrganic	- / -	- / -	- / -	1 / 20.982	- / -	1 / 20.982	2 / 34.074	2 / 34.756	5 / 88.630	17 / 298.724	8 / 150.816	35 / 627.982
1.1.3) NON-FMP SHORE SITE UNITS - NonOrganic	- / -	- / -	- / -	1 / 20.982	- / -	1 / 20.982	1 / 17.037	- / -	- / -	- / -	- / -	2 / 38.019
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 41.964	- / -	- / 41.964	- / 75.715	- / 84.948	- / 139.826	- / 377.054	- / 254.668	- / 974.175
<i>Subtotal: TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM</i>	- / -	- / -	- / -	2 / 41.964	- / -	2 / 41.964	4 / 75.715	4 / 84.948	7 / 139.826	20 / 377.054	12 / 254.668	49 / 974.175
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 41.964	- / -	- / 41.964	- / 75.715	- / 84.948	- / 139.826	- / 377.054	- / 254.668	- / 974.175
Support (All Modification Items)												
2.1) Production Support	- / -	- / -	- / -	- / 6.438	- / -	- / 6.438	- / 11.775	- / 16.276	- / 8.415	- / 9.516	- / 44.401	- / 96.821
2.2) Engineering Change Proposals (ECP)	- / -	- / -	- / -	- / 12.102	- / -	- / 12.102	- / 2.255	- / 14.495	- / 16.646	- / 16.709	- / 37.274	- / 159.481
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 8.540	- / -	- / 8.540	- / 14.030	- / 20.771	- / 15.061	- / 16.225	- / 81.675	- / 156.302
Installation												
<i>Modification Item 1 of 1:</i> TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM	- / 0.000	- / -	- / -	- / 0.171	- / -	- / 0.171	- / 3.222	- / 27.220	- / 80.764	- / 97.752	- / 710.800	- / 919.929
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.171	- / -	- / 0.171	- / 3.222	- / 27.220	- / 80.764	- / 97.752	- / 710.800	- / 919.929
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	50.675	-	50.675	92.967	132.939	235.651	491.031	1,047.143	2,050.406

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Modification Item 1 of 1: TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Manufacturer Information

Manufacturer Name: NORTHROP GRUMMAN ⁽⁷⁾	Manufacturer Location: BALTIMORE, MD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Jun 2017	May 2018	Feb 2019	Jan 2020	Jan 2021
Delivery Dates			Jun 2019	Nov 2019	Aug 2020	Jul 2021	Jul 2122

Installation Information

Method of Implementation: SHIPALT/AIT:: Installation Name: FMP SHIP UNITS (LARGE RCS)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.303	- / 3.113	1 / 20.449	- / -	- / -	1 / 23.865
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.634	- / 6.519	2 / 42.770	- / -	2 / 49.923
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.317	- / 3.576	1 / 24.640	1 / 21.385	2 / 49.918
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.950	3 / 76.794	3 / 77.744
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 103.852	4 / 103.852
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.303	- / 4.064	1 / 30.544	3 / 68.360	8 / 202.031	12 / 305.302

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	1	8	12		
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	9	12		

Method of Implementation: [none specified]:: Installation Name: FMP SHIP UNITS (SMALL RCS)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Modification Item 1 of 1: TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Installation Information

Method of Implementation: [none specified]:: Installation Name: FMP SHIP UNITS (SMALL RCS)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / 0.171	- / -	- / 0.171	- / 2.267	1 / 11.559	- / -	- / -	- / -	1 / 13.997
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.362	- / 4.662	2 / 23.612	- / -	- / -	2 / 28.636
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.290	- / 3.335	1 / 21.772	1 / 12.079	- / -	2 / 37.476
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.155	- / 13.386	5 / 75.048	5 / 89.589
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.927	17 / 296.361	17 / 300.288
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 137.360	8 / 137.360
Total	- / -	- / -	- / -	- / 0.171	- / -	- / 0.171	- / 2.919	1 / 19.556	3 / 46.539	1 / 29.392	30 / 508.769	35 / 607.346

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1	1	-	-	-	30	35
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1	1	-	-	30	35

Method of Implementation: AIT:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.600	- / -	- / -	- / -	1 / 3.600
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.681	- / -	- / -	1 / 3.681
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.600	1 / 3.681	- / -	- / -	2 / 7.281

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 6 / TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Modification Item 1 of 1: TC060 - BLOCK 3 ELECTRONIC ATTACK (EA) SYSTEM

Installation Information

Method of Implementation: AIT:: Installation Name: NON-FMP SHORE SITE UNITS

Installation Schedule

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

Footnotes:

⁽⁷⁾ The total lead time for production of FY17 units is 24 months, the production lead time for FY18-FY21 units is 18 months.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4				P-1 Line Item Number / Title: 2312 / AN/SLQ-32			Modification Number / Title: 7 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System					

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	15.400	6.954	56.701	46.436	-	46.436	7.929	-	-	-	-	133.420
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	15.400	6.954	56.701	46.436	-	46.436	7.929	-	-	-	-	133.420
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	15.400	6.954	56.701	46.436	-	46.436	7.929	-	-	-	-	133.420
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Block 3T (also referred to as nomenclature AN/SLQ-59) will provide an Electronic Attack (EA) capability improvement required for the AN/SLQ32(V) system to keep pace with the threat. Block 3T provides initial, limited interim capability of a focused application of the Naval Research Lab (NRL) Transportable EW Module (TEWM) system to meet an urgent operational needs statement.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 7 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System

Models of Systems Affected: TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System	Modification Type: SHIPALT/AIT	Related RDT&E PEs: 0604757N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System												
B Kits												
Recurring												
1.1.1) FMP Ship Units - NonOrganic	3 / 14.500	- / -	7 / 35.252	5 / 25.940	- / -	5 / 25.940	- / -	- / -	- / -	- / -	- / -	15 / 75.692
<i>Subtotal: Recurring</i>	- / 14.500	- / -	- / 35.252	- / 25.940	- / -	- / 25.940	- / -	- / -	- / -	- / -	- / -	- / 75.692
<i>Subtotal: TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System</i>	3 / 14.500	- / -	7 / 35.252	5 / 25.940	- / -	5 / 25.940	- / -	- / -	- / -	- / -	- / -	15 / 75.692
<i>Subtotal: Procurement, All Modification Items</i>	- / 14.500	- / -	- / 35.252	- / 25.940	- / -	- / 25.940	- / -	- / -	- / -	- / -	- / -	- / 75.692
Support (All Modification Items)												
2.1) Production Support	- / -	- / -	- / 1.101	- / 12.100	- / -	- / 12.100	- / -	- / -	- / -	- / -	- / -	- / 13.201
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 1.101	- / 12.100	- / -	- / 12.100	- / -	- / -	- / -	- / -	- / -	- / 13.201
Installation												
<i>Modification Item 1 of 1:</i> TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System	- / 0.900	- / 6.954	- / 20.348	- / 18.396	- / -	- / 18.396	- / 7.929	- / -	- / -	- / -	- / -	- / 54.527
<i>Subtotal: Installation</i>	- / 0.900	- / 6.954	- / 20.348	- / 18.396	- / -	- / 18.396	- / 7.929	- / -	- / -	- / -	- / -	- / 54.527
Total												
Total Cost (Procurement + Support + Installation)	15.400	6.954	56.701	46.436	-	46.436	7.929	-	-	-	-	133.420

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 4	P-1 Line Item Number / Title: 2312 / AN/SLQ-32	Modification Number / Title: 7 / TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System

Modification Item 1 of 1: TC060 - BLOCK 3T SURFACE EW IMPROVEMENTS EA System

Manufacturer Information

Manufacturer Name: Exelis	Manufacturer Location: Boalsburg, PA
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 7

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017				
Delivery Dates		Jul 2016	Jul 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: FMP Ship Units

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	0 / 0.900	2 / 6.600	1 / 4.095	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 11.595
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / 0.354	3 / 16.015	4 / 8.731	- / -	4 / 8.731	- / -	- / -	- / -	- / -	- / -	7 / 25.100
FY 2017	- / -	- / -	- / 0.238	2 / 9.665	- / -	2 / 9.665	3 / 7.929	- / -	- / -	- / -	- / -	5 / 17.832
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	0 / 0.900	2 / 6.954	4 / 20.348	6 / 18.396	- / -	6 / 18.396	3 / 7.929	- / -	- / -	- / -	- / -	15 / 54.527

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	1	1	1	-	-	3	2	2	-	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
Out	-	-	-	-	1	1	1	-	-	3	2	2	-	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15

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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 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	738.903	123.362	138.002	170.733	-	170.733	224.347	238.047	215.963	225.367	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	738.903	123.362	138.002	170.733	-	170.733	224.347	238.047	215.963	225.367	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	738.903	123.362	138.002	170.733	-	170.733	224.347	238.047	215.963	225.367	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	6.448	4.126	1.375	-	1.375	2.764	2.729	2.501	0.126	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[P5 / 1U029 Information Warfare (IW) Training Equipment]: IW training equipment provides operator, unit or multi-unit level training on Tactical Cryptologic Systems (TCS). This equipment enhances initial skills, provides refresher training and increases proficiency of the operator on TCS through the generation and replay of operational scenarios by software simulation versus hardware simulation. IW training equipment is updated based on new variants of Ships Signal Exploitation Equipment (SSEE) systems. Additionally this line supports the procurement of the STALLION (formerly known as Cryptologic On-Line Trainer) hardware for shipboard IW team training. Stallion is a web-based/SOA scenario training system that emulates Navy tactical SIGINT/Information Operations (IO) system functionality. Stallion is delivered turnkey to the Center for Information Dominance Learning Sites (CIDLS).

[P5 / 1U016 SSEE Increment G]: The SSEE Inc G Program is an incremental acquisition, GOTS/COTS program that provides cryptologic signals exploitation capabilities designed to meet the requirements for shipboard cryptologic operations within the Ship's Signal Exploitation Space (SSES) aboard a variety of ship classes and shore facilities. The SSEE Inc G system will provide a mobile, passive capability to detect, classify, track, and determine the intent of enemy units through exploitation of their command and control emissions. The system searches the Radio Frequency (RF) spectrum based on operator-defined search strategies with the receivers under computer control, alerts the operator when a signal is detected and creates signal files to be used for on-line and post processing. The SSEE INC G System will leverage existing architectures and support the integrated fires construct with Shipboard Combat Systems providing non-kinetic engagement to enhance combat effectiveness. The system will be scalable, reconfigurable to mission, modular, removable and dynamically reprogrammable in response to new threats and capabilities. The system is upgraded incrementally as improvements are developed. The SSEE INC G System will deliver improved information/cyber Warfare planning, exploitation, and attack capabilities across Naval platforms.

[P5 / 1U020 SSEE MODS Engineering Change Proposal - Ship]: Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) MODS program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE MODS capability and relevance within a rapidly evolving threat environment.

[P3A / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship]: ECP/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the Ships Signal Exploitation Equipment (SSEE) Increment (Inc) E program and incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of Signals of Interest (SOI) and Electronic Warfare (EW). These changes allow for a common logistic support baseline and provide the hardware and software to incorporate P3I/new COTS base technologies. Specifically, this funds field change kits/ECPs that may also include all or some of the following upgrades; Tapered Slot Antennas (TSA), Hostile Force Integration Targeting Subsystems (HITS) hosted on Digital Receiver Technology (DRT), Radio Frequency Distribution Unit (RFDU) Backfits, Digital Tuners, Global Positioning System (GPS) Selective Availability Anti-Spoofing Modules (SAASM), Medusa, various antenna types, various hardware (to include blade servers) and software upgrades, and equipment to provide Information Operation (IO)/EW acquisition capabilities and localization of modern threat communications and SOI.

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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 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment		P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit
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	
<p>[P3A - 2 / 1U017 SSEE Increment F Ship]: The SSEE Increment F program is an incremental acquisition, COTS/GOTS program designed as the building block to improve the Information Warfare (IW) exploitation / IO / non-kinetic and subsequent tactical cryptologic capability across Navy surface combatant platforms. SSEE Increment F provides the afloat IW / cryptologist with IO / non-kinetic capabilities and subsequent threat identification and analysis of Communications Intelligence as well as queuing of radio direction finding assets. Equipment includes receivers, Radio Frequency management systems, recorders, audio distribution systems, computers, antennas and ancillary hardware. The system is upgraded incrementally as improvements are developed. SSEE Increment F employs the Maritime Cryptologic Strategy for the 21st century concept of a single core architecture that is easily modernized and scaled in capability. The system design permits the rapid insertion of new and emerging P3I to address the evolving threat. The system utilizes generic processor technology to counteract obsolescence issues with digital signal processing /field programmable gate array technologies and provide software receivers for ease of modification to deal with known and projected threat SOI. Automated signal acquisition and integrated radio direction finding are incorporated into the SSEE Increment F system. SSEE Increment F also includes a small form factor variant, Tactical Cryptologic System (TCS) to meet IW / IO / non-kinetic and subsequent tactical cryptologic capability onboard Arleigh Burke Class Destroyers (DDG) Flight I platforms and as a replacement for select SSEE Increment E variants and older signals intelligence systems.</p> <p>TCS is a scalable, modular variant of SSEE Increment F that allows configuration to meet platform mission requirements. TCS leverages SSEE Increment F common software, training, and logistics. TCS consists of infrastructure (Topside Antennas) which will be permanently installed on 46 Unit Level ships. The Below Deck Core system includes a modular component to all Mission Tailorable upgrades to increase capabilities. The modularity and scalability of TCS is delivered using Engineering Change Proposal (ECP).</p> <p>[P3A - 4 / 1U018/1U019 Paragon-Graywing]: SSEE Modifications is comprised of the Paragon and Graywing subsystems. Beginning in FY15, Paragon capabilities are collapsed into Graywing hardware resulting in cost efficiencies. Paragon is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into SSEE systems. This capability provides simultaneous detection, collection, processing, IO and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today. Graywing is an advanced common data link system that will be integrated into SSEE systems. It is a critical component of "Ballistic Missile Defense, Executive Committee, Anti-Submarine Warfare, Chief of Naval Operations, Executive Board IO Countermeasure Red Flash" initiative (details held at a higher classification level).</p> <p>[P3A - 6 / 1U014 Engineering Change Proposal (ECP) Increment F]: Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) Increment F program. ECP incorporates P3I for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE INC F's capability and relevance within a rapidly evolving threat environment.</p>		

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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 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment

P-1 Line Item Number / Title:
2360 / Shipboard IW Exploit

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Shipboard IW Exploit	P-5a, P-21		- / 11.484	- / 1.340	- / 1.550	- / 11.496	- / -	- / 11.496
P-3a	1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship (Upgrade)			- / 353.525	- / 13.210	- / 6.716	- / 5.005	- / -	- / 5.005
P-3a	2 / 1U017 SSEE Increment F Ship (TBD)			- / 279.103	- / 89.636	- / 73.334	- / 99.354	- / -	- / 99.354
P-3a	3 / 1U017 SSEE Inc F - Shore (TBD)			- / 49.966	- / -	- / -	- / -	- / -	- / -
P-3a	4 / 1U018/1U019 Paragon-Graywing (Upgrade)			- / 21.470	- / 5.042	- / 18.331	- / 44.813	- / -	- / 44.813
P-3a	5 / 1U018/19 Paragon-Graywing Shore (Upgrade)			- / 14.751	- / 1.204	- / 25.143	- / 2.000	- / -	- / 2.000
P-3a	6 / 1U014 Engineering Change Proposal (ECP) Increment F (Upgrade)			- / 8.604	- / 12.930	- / 12.928	- / 8.065	- / -	- / 8.065
P-40	Total Gross/Weapon System Cost			- / 738.903	- / 123.362	- / 138.002	- / 170.733	- / -	- / 170.733

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Shipboard IW Exploit	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship (Upgrade)			- / 1.262	- / 1.252	- / 0.370	- / -	- / -	- / 381.340
P-3a	2 / 1U017 SSEE Increment F Ship (TBD)			- / 129.683	- / 135.868	- / 80.535	- / 45.971	Continuing	Continuing
P-3a	3 / 1U017 SSEE Inc F - Shore (TBD)			- / -	- / -	- / -	- / -	- / -	- / 49.966
P-3a	4 / 1U018/1U019 Paragon-Graywing (Upgrade)			- / 66.786	- / 78.552	- / 67.384	- / 72.206	Continuing	Continuing
P-3a	5 / 1U018/19 Paragon-Graywing Shore (Upgrade)			- / -	- / -	- / -	- / -	- / -	- / 43.098
P-3a	6 / 1U014 Engineering Change Proposal (ECP) Increment F (Upgrade)			- / 21.867	- / 20.746	- / 10.870	- / 17.686	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 224.347	- / 238.047	- / 215.963	- / 225.367	Continuing	Continuing

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

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

Justification:
The Shipboard IW budget was increased to support the CNO's Navigation Plan (2016-2020). FY17 SSEE funding supports Tactical Cryptologic System (TCS), Anti-Access, Area Denial (A2AD), and SSEE Increment E Service Life Extension Program (SLEP) and Afloat Cyber efforts. TCS is a scalable, modular variant of SSEE Increment F that allows configuration to meet platform mission requirements. TCS leverages SSEE Increment F common software, training, and logistics. TCS consists of infrastructure (Topside Antennas) which will be permanently installed on 46 Unit Level ships. The Below Deck Core system includes a modular component for mission adaptable upgrades for increased capabilities. The modularity and scalability of TCS is delivered using Engineering Change Proposal (ECP). A2AD funding will procure Anti-Access, Area Denial (A2AD) capabilities for the Ship's Signal Exploitation Equipment (SSEE) Increment F, G and Modifications systems. A2AD capabilities integrated into the SSEE Systems will enable maritime power projection in enabling surface vessels to disrupt, deny, degrade and defeat adversary (state and non-state) use of the radio frequency spectrum, improving the Fleet's ability to communicate and operate therein. These systems will be deployed supporting Assured Command and Control, Battlespace Awareness, and Integrated Fires. Afloat Cyber provides for the ability to continue and extend the Fleet's afloat cyber operations for the SSEE Family of Systems and includes procurement of Commercial off the Shelf hardware solutions (further details are held at a higher classification level and can be provided upon request).

Tactical Cryptologic System has been broken out from SSEE INC F to better identify the individual costs for each system.

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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 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment		P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit
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	

PROCUREMENT DATA:

FY17 funding will procure:

SSEE INC F: (6) SSEE Inc F Systems; (6) TCS Below Deck and Core Systems; (6) TCS Infrastructures

Information Warfare (IW): (1) Training Unit (Simulator)

SSEE INC F ECP: (6) Blade Replacement Kits; (2) TCS ECP Systems; (2) TCS ECP DRT's; (2) TCS ECP Red Falcons Systems; (2) TCS ECP Processing Upgrades; (2) TCS ECP Medusa

SSEE INC E: (10) Red Falcon Antennas; (17) XP Eradication/SLEP/Upgrade Kits

SSEE Modifications: (6) Graywing Systems

SSEE Modifications ECP: (4) SSEE Mods ECP Systems

In FY2017 the following represent the increases from FY2016 to FY2017: 1 SSEE MODS Engineering Change-Shore and 3 SSEE MODS Engineering Change -Ship for Shipboard IW; 1 Inc F System (Ship), 2 TCS Below Deck and Core, 2 TCS infrastructure, 1 additional Inc F install, 4 SSEE Inc F Ship installs for SSEE Increment F Ships; 4 Paragon for Paragon-Graywing.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Item Number / Title [DODIC]: 1 / Shipboard IW Exploit
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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)	11.484	1.340	1.550	11.496	-	11.496
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	11.484	1.340	1.550	11.496	-	11.496
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	11.484	1.340	1.550	11.496	-	11.496

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - 1U029 Information Warfare (IW) Training Equipment Cost																		
Recurring Cost																		
1.1.1) Information Warfare (IW) Training Equipment ^(†)	820.286	14	11.484	1,340.000	1	1.340	1,550.000	1	1.550	1,576.000	1	1.576	-	-	-	1,576.000	1	1.576
<i>Subtotal: Recurring Cost</i>	-	-	11.484	-	-	1.340	-	-	1.550	-	-	1.576	-	-	-	-	-	1.576
<i>Subtotal: Hardware - 1U029 Information Warfare (IW) Training Equipment Cost</i>	-	-	11.484	-	-	1.340	-	-	1.550	-	-	1.576	-	-	-	-	-	1.576
Hardware - 1U020 SSEE MODS Engineering Change Proposal - Ship Cost																		
Recurring Cost																		
3.1.1) MODS ECP - Ship ^(†)	-	-	0.000	-	-	-	-	-	-	2,198.000	3	6.594	-	-	-	2,198.000	3	6.594
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	6.594	-	-	-	-	-	6.594
<i>Subtotal: Hardware - 1U020 SSEE MODS Engineering Change Proposal - Ship Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	6.594	-	-	-	-	-	6.594
Hardware - 1U020 SSEE MODS Engineering Change Proposals - Shore Cost																		
Recurring Cost																		
4.1.1) MODS ECP - Shore ^(†)	-	-	0.000	-	-	-	-	-	-	2,198.000	1	2.198	-	-	-	2,198.000	1	2.198
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	2.198	-	-	-	-	-	2.198
<i>Subtotal: Hardware - 1U020 SSEE MODS Engineering</i>	-	-	0.000	-	-	-	-	-	-	-	-	2.198	-	-	-	-	-	2.198

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5						P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit						Item Number / Title [DODIC]: 1 / Shipboard IW Exploit					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Change Proposals - Shore Cost</i>																		
Support - 1U020 SSEE MODS Engineering Change Proposal - Shore Cost																		
5.1) Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.121	-	-	-	-	-	0.121
<i>Subtotal: Support - 1U020 SSEE MODS Engineering Change Proposal - Shore Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	0.121	-	-	-	-	-	0.121
Support - 1U020 SSEE MODS Engineering Change Proposal - Ship Cost																		
7.1) Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.362	-	-	-	-	-	0.362
7.2) DSA - Ship	-	-	0.000	-	-	-	-	-	-	-	-	0.645	-	-	-	-	-	0.645
<i>Subtotal: Support - 1U020 SSEE MODS Engineering Change Proposal - Ship Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.007	-	-	-	-	-	1.007
Gross/Weapon System Cost	-	-	11.484	-	-	1.340	-	-	1.550	-	-	11.496	-	-	-	-	-	11.496

Remarks:

[Hardware] Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) MODS program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE MODS capability and relevance within a rapidly evolving threat environment.

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Item Number / Title [DODIC]: 1 / Shipboard IW Exploit
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Information Warfare (IW) Training Equipment		2015	SSC PAC / San Diego, CA	WR	San Diego, CA	Nov 2014	Aug 2015	1	1,340.000	Y		
1.1.1) Information Warfare (IW) Training Equipment		2016	SSC PAC / San Diego, CA	WR	San Diego	Nov 2015	Aug 2016	1	1,550.000	Y		
1.1.1) Information Warfare (IW) Training Equipment		2017	SSC PAC / San Diego, CA	WR	San Diego	Nov 2016	Aug 2017	1	1,576.000	Y		
3.1.1) MODS ECP - Ship ^(†)		2017	TBD / NSMA - San Diego	C / CPFF	NSMA, San Diego	Jan 2017	Jan 2018	3	2,198.000	N	Oct 2017	
4.1.1) MODS ECP - Shore		2017	TBD / TBD	C / CPFF	NSMA, San Diego	Jan 2017	Jan 2018	1	2,198.000	N	Jan 2017	

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Item Number / Title [DODIC]: 1 / Shipboard IW Exploit
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015														Fiscal Year 2016														BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016														
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
3.1.1) MODS ECP - Ship																																		3	
	1	2017	NAVY	3	-	3																													3
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Item Number / Title [DODIC]: 1 / Shipboard IW Exploit
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
3.1.1) MODS ECP - Ship																															
	1	2017	NAVY	3	-	3				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Item Number / Title [DODIC]: 1 / Shipboard IW Exploit
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - NSMA - San Diego	-	-	-	-	3	12	15	-	-	-	-

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5				P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit				Modification Number / Title: 1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	353.525	13.210	6.716	5.005	-	5.005	1.262	1.252	0.370	-	-	381.340
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	353.525	13.210	6.716	5.005	-	5.005	1.262	1.252	0.370	-	-	381.340
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	353.525	13.210	6.716	5.005	-	5.005	1.262	1.252	0.370	-	-	381.340
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete, end of life and unsupportable equipment for the Ships Signal Exploitation Equipment (SSEE) Increment E program. ECP incorporates Pre-Planned Product Improvements (P3I) for the acquisition and localization of the latest, fleet-defined and prioritized Signals of Interest (SOI) and Information Operations (IO). ECP changes allow for a common logistic support baseline and provide the hardware and software to incorporate P3I/new COTS base technologies.

[Digital Receiver Technology (DRT)] DRTs to be installed in conjunction with SSEE Inc E Group II (A) Field Change Kit as Kits.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5					P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit					Modification Number / Title: 1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship			
Models of Systems Affected: Various				Modification Type: Upgrade				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship</i>													
B Kits													
Recurring													
1.1.1) SSEE Inc E ECP's (Prior Year) - NonOrganic	35 / 232.792	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 232.792	
1.1.2) SSEE Inc E Group II (A) Field Change Kit - NonOrganic ⁽¹⁾	47 / 34.532	13 / 2.187	3 / 0.584	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	63 / 37.303	
1.1.3) SSEE Inc E Group III (Antenna Upgrades) - NonOrganic	20 / 8.760	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 8.760	
1.1.4) Digital Receiver Technology (DRT) - Organic	10 / 4.950	12 / 6.000	2 / 1.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 12.070	
1.1.5) MEDUSA - NonOrganic	32 / 10.320	4 / 1.080	2 / 0.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	38 / 11.960	
1.1.6) MEDUSA - Non Installed - Organic	5 / 2.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.500	
1.1.7) Red Falcon - NonOrganic	- / -	- / -	- / -	10 / 0.700	- / -	10 / 0.700	10 / 0.700	10 / 0.700	- / -	- / -	- / -	30 / 2.100	
1.1.8) XP Eradication (SLEP) - NonOrganic	- / -	- / -	- / -	17 / 2.550	- / -	17 / 2.550	- / -	- / -	- / -	- / -	- / -	17 / 2.550	
<i>Subtotal: Recurring</i>	<i>- / 293.854</i>	<i>- / 9.267</i>	<i>- / 2.264</i>	<i>- / 3.250</i>	<i>- / -</i>	<i>- / 3.250</i>	<i>- / 0.700</i>	<i>- / 0.700</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 310.035</i>	
<i>Subtotal: 1U013 Engineering Change Proposal (ECP)/ Obsolescence Ship</i>	<i>149 / 293.854</i>	<i>29 / 9.267</i>	<i>7 / 2.264</i>	<i>27 / 3.250</i>	<i>- / -</i>	<i>27 / 3.250</i>	<i>10 / 0.700</i>	<i>10 / 0.700</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>232 / 310.035</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 293.854</i>	<i>- / 9.267</i>	<i>- / 2.264</i>	<i>- / 3.250</i>	<i>- / -</i>	<i>- / 3.250</i>	<i>- / 0.700</i>	<i>- / 0.700</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 310.035</i>	
Support (All Modification Items)													
2.1) Production Support	- / 2.271	- / 0.597	- / 0.402	- / 0.195	- / -	- / 0.195	- / 0.162	- / 0.132	- / -	- / -	- / -	- / 3.759	
2.2) DSA - Ship	- / 3.118	- / 1.096	- / 0.740	- / 0.216	- / -	- / 0.216	- / 0.110	- / 0.110	- / 0.040	- / -	- / -	- / 5.430	
<i>Subtotal: Support</i>	<i>- / 5.389</i>	<i>- / 1.693</i>	<i>- / 1.142</i>	<i>- / 0.411</i>	<i>- / -</i>	<i>- / 0.411</i>	<i>- / 0.272</i>	<i>- / 0.242</i>	<i>- / 0.040</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 9.189</i>	
Installation													
<i>Modification Item 1 of 1: 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship</i>	<i>- / 54.282</i>	<i>- / 2.250</i>	<i>- / 3.310</i>	<i>- / 1.344</i>	<i>- / -</i>	<i>- / 1.344</i>	<i>- / 0.290</i>	<i>- / 0.310</i>	<i>- / 0.330</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 62.116</i>	
<i>Subtotal: Installation</i>	<i>- / 54.282</i>	<i>- / 2.250</i>	<i>- / 3.310</i>	<i>- / 1.344</i>	<i>- / -</i>	<i>- / 1.344</i>	<i>- / 0.290</i>	<i>- / 0.310</i>	<i>- / 0.330</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 62.116</i>	
Total													
Total Cost (Procurement + Support + Installation)	353.525	13.210	6.716	5.005	-	5.005	1.262	1.252	0.370	-	-	381.340	

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Exhibit P-3a, Individual Modification: PB 2017 Navy						Date: February 2016	
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5			P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit			Modification Number / Title: 1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship	
Modification Item 1 of 1: 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship							
Manufacturer Information							
Manufacturer Name: TICOM-SSEE Inc E DRTs				Manufacturer Location: TX			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	Jan 2016	Jan 2017					
Manufacturer Name: SSC LANT/Various-SSEE Inc E Grp II(A)				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	Jan 2016	Jan 2017					
Manufacturer Name: SSC LANT/Various-MEDUSA				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	Jan 2016	Jan 2017					
Manufacturer Name: ARGON - ECP INC E Digital Tuners				Manufacturer Location: Fairfax, VA			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	Jan 2016	Jan 2017					
Manufacturer Name: TBD - XP Eradication				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Jan 2017				
Delivery Dates			Jul 2017				
Manufacturer Name: SSC PAC/ Various - Red Falcon				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Jan 2017				
Delivery Dates			Jan 2018				

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 1 / 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship

Modification Item 1 of 1: 1U013 Engineering Change Proposal (ECP)/Obsolescence Ship

Installation Information

Method of Implementation: IMO:: Installation Name: ECP/OBSOLESCENCE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	119 / 54.282	15 / 2.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	134 / 56.532
FY 2015	- / -	- / -	17 / 3.310	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 3.310
FY 2016	- / -	- / -	- / -	5 / 0.834	- / -	5 / 0.834	- / -	- / -	- / -	- / -	- / -	5 / 0.834
FY 2017	- / -	- / -	- / -	17 / 0.510	- / -	17 / 0.510	10 / 0.290	- / -	- / -	- / -	- / -	27 / 0.800
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.310	- / -	- / -	- / -	10 / 0.310
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.330	- / -	- / -	10 / 0.330
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	119 / 54.282	15 / 2.250	17 / 3.310	22 / 1.344	- / -	22 / 1.344	10 / 0.290	10 / 0.310	10 / 0.330	- / -	- / -	203 / 62.116

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	115	4	5	6	4	-	6	6	4	1	1	2	19	-	3	3	3	1	3	3	3	1	3	3	3	1	-	-	-	-	203
Out	104	15	-	4	4	7	-	6	6	4	1	1	2	19	-	3	3	3	1	3	3	3	1	3	3	3	1	-	-	-	203

Method of Implementation (Organic): Digital Receiver Technology (DRT) - Not Installed **Installation Quantity:** 24

Method of Implementation (Organic): MEDUSA - Non Installed - Not Installed **Installation Quantity:** 5

Footnotes:

(1) ECP equipment being procured supports SSEE Inc E. ECPs are then grouped into "Field Change Kits" based on configuration of the lot and/or variant being upgraded for installation. Unit cost listed above is the average unit cost, which ranges from \$.150M to \$.224M. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. SSEE INC E consists of 6 variants on 9 different platform types. Additionally, older SSEE INC E variants will require additional equipment to bring the system up to the latest baseline. SSEE E Group II (A) Field Change Kits (FCK) include "H" and "S" blade servers as part of the FCK. Installation quantities may reflect multiple ECP Procurements based on ship configuration. First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy								Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5				P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit				Modification Number / Title: 2 / 1U017 SSEE Increment F Ship			

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	279.103	89.636	73.334	99.354	-	99.354	129.683	135.868	80.535	45.971	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	279.103	89.636	73.334	99.354	-	99.354	129.683	135.868	80.535	45.971	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	279.103	89.636	73.334	99.354	-	99.354	129.683	135.868	80.535	45.971	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Ship Signal Exploitation Equipment (SSEE) Inc F Program will provide strike groups with Information Operation (IO) / non-kinetic capabilities and the subsequent ability to exploit Signals Of Interest (SOI) by providing a state-of-the-art system which detects, acquires, and collects data on any potential threat.

[TCS Below Deck and Core] Tactical Cryptologic System (TCS) is a scalable, modular variant of SSEE Increment F that allows configuration to meet platform mission requirements. TCS leverages SSEE Increment F common software, training, and logistics. TCS consists of infrastructure (Topside Antennas) which will be permanently installed on 46 Unit Level ships. The Below Deck Core system includes a modular component to all Mission Tailorable upgrades to increase capabilities. The modularity and scalability of TCS is delivered using Engineering Change Proposal (ECP).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5				P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit						Modification Number / Title: 2 / 1U017 SSEE Increment F Ship			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> 1U017 SSEE Increment F Ship													
B Kits													
Recurring													
1.1.1) Inc F Systems (Ship) - NonOrganic ⁽²⁾	28 / 202.014	8 / 63.280	5 / 40.050	6 / 48.876	- / -	6 / 48.876	8 / 66.272	7 / 59.675	- / -	- / -	Continuing	Continuing	
1.1.2) TCS Below Deck and Core - Organic	1 / 7.088	- / -	4 / 12.360	6 / 18.600	- / -	6 / 18.600	6 / 18.912	8 / 25.600	10 / 32.520	4 / 13.208	Continuing	Continuing	
1.1.3) TCS Infrastructure - NonOrganic ⁽³⁾	- / -	- / -	4 / 1.920	6 / 3.000	- / -	6 / 3.000	6 / 3.048	8 / 4.128	10 / 5.270	7 / 3.780	Continuing	Continuing	
1.1.4) TCS Shore - NonOrganic	- / -	3 / 9.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
1.1.5) A2AD KIT - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	6 / 7.596	4 / 5.144	3 / 3.924	4 / 5.320	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 209.102	- / 73.030	- / 54.330	- / 70.476	- / -	- / 70.476	- / 95.828	- / 94.547	- / 41.714	- / 22.308	Continuing	Continuing	
<i>Subtotal: 1U017 SSEE Increment F Ship</i>	29 / 209.102	11 / 73.030	13 / 54.330	18 / 70.476	- / -	18 / 70.476	26 / 95.828	27 / 94.547	23 / 41.714	15 / 22.308	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 209.102	- / 73.030	- / 54.330	- / 70.476	- / -	- / 70.476	- / 95.828	- / 94.547	- / 41.714	- / 22.308	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support (Ship)	- / 13.562	- / 4.382	- / 2.858	- / 3.384	- / -	- / 3.384	- / 5.557	- / 5.390	- / 3.074	- / 1.338	Continuing	Continuing	
2.2) DSA (Ship)	- / 11.375	- / 2.344	- / 3.246	- / 4.656	- / -	- / 4.656	- / 5.816	- / 6.541	- / 5.318	- / 3.482	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 24.937	- / 6.726	- / 6.104	- / 8.040	- / -	- / 8.040	- / 11.373	- / 11.931	- / 8.392	- / 4.820	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> 1U017 SSEE Increment F Ship	- / 45.064	- / 9.880	- / 12.900	- / 20.838	- / -	- / 20.838	- / 22.482	- / 29.390	- / 30.429	- / 18.843	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 45.064	- / 9.880	- / 12.900	- / 20.838	- / -	- / 20.838	- / 22.482	- / 29.390	- / 30.429	- / 18.843	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	279.103	89.636	73.334	99.354	-	99.354	129.683	135.868	80.535	45.971	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 2 / 1U017 SSEE Increment F Ship

Modification Item 1 of 1: 1U017 SSEE Increment F Ship

Manufacturer Information

Manufacturer Name: ARGON - SSEE INC F	Manufacturer Location: Fairfax, VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017				
Delivery Dates		Jan 2017	Jan 2018				

Manufacturer Name: ARGON - SSEE INC F	Manufacturer Location: Fairfax, VA
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015						
Delivery Dates	Mar 2016						

Installation Information

Method of Implementation: Ship:: Installation Name: Inc F Systems (Ship)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	23 / 45.064	5 / 9.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	28 / 54.944
FY 2015	- / -	- / -	6 / 12.000	2 / 4.068	- / -	2 / 4.068	- / -	- / -	- / -	- / -	- / -	8 / 16.068
FY 2016	- / -	- / -	- / -	5 / 10.170	- / -	5 / 10.170	- / -	- / -	- / -	- / -	- / -	5 / 10.170
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 12.414	- / -	- / -	- / -	- / -	6 / 12.414
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 16.832	- / -	- / -	- / -	8 / 16.832
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 14.973	- / -	- / -	7 / 14.973
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	23 / 45.064	5 / 9.880	6 / 12.000	7 / 14.238	- / -	7 / 14.238	6 / 12.414	8 / 16.832	7 / 14.973	- / -	- / -	62 / 125.401

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	20	3	1	1	1	2	-	2	2	2	4	3	-	-	3	3	-	-	2	2	3	1	2	2	3	-	-	-	-	-	62
Out	20	3	1	1	1	2	-	-	2	2	2	4	3	-	-	3	3	-	-	2	2	3	1	2	2	3	-	-	-	-	62

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 2 / 1U017 SSEE Increment F Ship

Modification Item 1 of 1: 1U017 SSEE Increment F Ship

Installation Information

Method of Implementation: IMO:: Installation Name: SSEE INC F Ship (Includes TCS Infrastructure and A2AD kits)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	4 / 6.600	- / -	4 / 6.600	- / -	- / -	- / -	- / -	- / -	4 / 6.600
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 10.068	- / -	- / -	- / -	- / -	6 / 10.068
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 12.558	- / -	- / -	- / -	12 / 12.558
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 15.456	- / -	- / -	12 / 15.456
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 18.843	- / -	13 / 18.843
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 6.600	- / -	4 / 6.600	6 / 10.068	12 / 12.558	12 / 15.456	13 / 18.843	Continuing	Continuing

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	3	1	-	-	3	3	-	-	3	6	3	-	4	7	1	-	4	7	2	11	58
Out	-	-	-	-	-	-	-	-	-	-	3	1	-	-	3	3	-	-	3	6	3	-	4	7	1	-	4	7	13	58

Method of Implementation: [none specified]:: Installation Name: TCS Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	3 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.900
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	3 / 0.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.900

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 2 / 1U017 SSEE Increment F Ship
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Modification Item 1 of 1: 1U017 SSEE Increment F Ship

Installation Information

Method of Implementation: [none specified]:: Installation Name: TCS Shore

Installation Schedule

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

Method of Implementation (Organic): TCS Below Deck and Core - Not Installed	Installation Quantity: 39
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Footnotes:

⁽²⁾ First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

⁽³⁾ Tactical Cryptologic System (TCS) Infrastructure procurements are comprised of the antenna infrastructure and core hardware components. TCS Infrastructure will be permanently installed on (46) Unit Level platforms. The Unit Level platforms will pull from the TCS Below Deck and Core system rotatable pool when deploying.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 3 / 1U017 SSEE Inc F - Shore
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	49.966	-	-	-	-	-	-	-	-	-	-	49.966
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	49.966	-	-	-	-	-	-	-	-	-	-	49.966
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	49.966	-	-	-	-	-	-	-	-	-	-	49.966
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Ship Signal Exploitation Equipment (SSEE) Program will provide strike groups with Information Operation (IO) / non-kinetic capabilities and the subsequent ability to exploit Signals Of Interest (SOI) by providing a state-of-the-art system which detects, acquires, and collects data on any potential threat.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5					P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit					Modification Number / Title: 3 / 1U017 SSEE Inc F - Shore			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> 1U017 SSEE Inc F - Shore													
B Kits													
Recurring													
1.1.1) SSEE Inc F - Shore - NonOrganic	4 / 28.296	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 28.296	
1.1.2) Training Equipment - Training Simulators - NonOrganic	4 / 9.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 9.400	
1.1.3) SSEE Inc F - Shore Non Installed - Organic	1 / 7.088	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.088	
<i>Subtotal: Recurring</i>	- / 44.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 44.784	
<i>Subtotal: 1U017 SSEE Inc F - Shore</i>	9 / 44.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 44.784	
<i>Subtotal: Procurement, All Modification Items</i>	- / 44.784	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 44.784	
Support (All Modification Items)													
2.1) Production Support	- / 1.972	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.972	
<i>Subtotal: Support</i>	- / 1.972	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.972	
Installation													
<i>Modification Item 1 of 1:</i> 1U017 SSEE Inc F - Shore	- / 3.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.210	
<i>Subtotal: Installation</i>	- / 3.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.210	
Total													
Total Cost (Procurement + Support + Installation)	49.966	-	-	-	-	-	-	-	-	-	-	49.966	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 3 / 1U017 SSEE Inc F - Shore
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Modification Item 1 of 1: 1U017 SSEE Inc F - Shore

Manufacturer Information

Manufacturer Name: ARGON - SSEE INC F FRP	Manufacturer Location: Fairfax, VA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: IMO:: Installation Name: SSEE INC F Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 3.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 3.210
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 3.210	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.210

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

Method of Implementation (Organic): SSEE Inc F - Shore Non Installed - Not Installed **Installation Quantity:** 1

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 4 / 1U018/1U019 Paragon-Graywing
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	21.470	5.042	18.331	44.813	-	44.813	66.786	78.552	67.384	72.206	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	21.470	5.042	18.331	44.813	-	44.813	66.786	78.552	67.384	72.206	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	21.470	5.042	18.331	44.813	-	44.813	66.786	78.552	67.384	72.206	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

SSEE Modifications is comprised of the Paragon and Graywing subsystems. Beginning in FY15, Paragon capabilities are collapsed into Graywing hardware resulting in cost efficiencies. Paragon is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into Ship Signal Exploitation Equipment (SSEE) systems. This capability provides simultaneous detection, collection, processing, Information Operations and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today. Graywing is an advanced common data link system that will be integrated into SSEE Inc E and Inc F systems. It is a critical component of "Ballistic Missile Defense, Executive Committee, Anti-Submarine Warfare, Chief of Naval Operations, Executive Board Information Operation (IO) Countermeasure Red Flash" (details held at a higher classification level).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5				P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit						Modification Number / Title: 4 / 1U018/1U019 Paragon-Graywing			
Models of Systems Affected: Various				Modification Type: Upgrade				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> 1U018/1U019 Paragon-Graywing													
B Kits													
Recurring													
1.1.1) Paragon - Organic ⁽⁴⁾	2 / 8.828	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 8.828	
1.1.2) Graywing - NonOrganic ⁽⁵⁾	2 / 8.828	- / -	2 / 12.400	6 / 37.842	- / -	6 / 37.842	8 / 51.272	9 / 58.653	7 / 46.389	8 / 53.912	Continuing	Continuing	
1.1.3) LRIP Retrofit Kit - NonOrganic	1 / 2.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.100	
<i>Subtotal: Recurring</i>	- / 19.756	- / -	- / 12.400	- / 37.842	- / -	- / 37.842	- / 51.272	- / 58.653	- / 46.389	- / 53.912	Continuing	Continuing	
<i>Subtotal: 1U018/1U019 Paragon-Graywing</i>	5 / 19.756	- / -	2 / 12.400	6 / 37.842	- / -	6 / 37.842	8 / 51.272	9 / 58.653	7 / 46.389	8 / 53.912	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 19.756	- / -	- / 12.400	- / 37.842	- / -	- / 37.842	- / 51.272	- / 58.653	- / 46.389	- / 53.912	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 1.064	- / 3.672	- / 2.049	- / 2.089	- / -	- / 2.089	- / 2.974	- / 3.298	- / 2.749	- / 3.218	Continuing	Continuing	
2.2) DSA	- / 0.650	- / 0.545	- / 0.682	- / 1.628	- / -	- / 1.628	- / 2.616	- / 3.145	- / 2.856	- / 2.903	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 1.714	- / 4.217	- / 2.731	- / 3.717	- / -	- / 3.717	- / 5.590	- / 6.443	- / 5.605	- / 6.121	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> 1U018/1U019 Paragon-Graywing	- / 0.000	- / 0.825	- / 3.200	- / 3.254	- / -	- / 3.254	- / 9.924	- / 13.456	- / 15.390	- / 12.173	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.825	- / 3.200	- / 3.254	- / -	- / 3.254	- / 9.924	- / 13.456	- / 15.390	- / 12.173	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	21.470	5.042	18.331	44.813	-	44.813	66.786	78.552	67.384	72.206	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 4 / 1U018/1U019 Paragon-Graywing

Modification Item 1 of 1: 1U018/1U019 Paragon-Graywing

Manufacturer Information

Manufacturer Name: ARGON - Graywing - SHIP	Manufacturer Location: Fairfax, VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jul 2016	Jan 2017				
Delivery Dates		Jul 2017	Jan 2018				

Installation Information

Method of Implementation: Ship:: Installation Name: Graywing

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	2 / 3.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 3.200
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 3.254	- / -	2 / 3.254	- / -	- / -	- / -	- / -	- / -	2 / 3.254
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 9.924	- / -	- / -	- / -	- / -	6 / 9.924
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 13.456	- / -	- / -	- / -	8 / 13.456
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 15.390	- / -	- / -	9 / 15.390
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 12.173	- / -	7 / 12.173
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	2 / 3.200	2 / 3.254	- / -	2 / 3.254	6 / 9.924	8 / 13.456	9 / 15.390	7 / 12.173	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	2	-	-	-	-	-	2	-	2	3	1	-	3	3	2	-	3	3	3	-	2	3	2	8	42
Out	-	-	-	-	-	-	-	2	-	-	-	-	-	2	-	2	3	1	-	3	3	2	-	3	3	3	-	2	3	10	42

Method of Implementation: Ship:: Installation Name: LRIP Retrofit Kit

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	1 / 0.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.825
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 4 / 1U018/1U019 Paragon-Graywing

Modification Item 1 of 1: 1U018/1U019 Paragon-Graywing

Installation Information

Method of Implementation: Ship:: Installation Name: LRIP Retrofit Kit

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.825

Installation Schedule

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

Method of Implementation (Organic): Paragon - Not Installed

Installation Quantity: 2

Footnotes:

(4) FY14 reflects Paragon and Graywing systems housed in separate hardware and installed concurrently. Beginning in FY15, Paragon capabilities are collapsed into Graywing hardware resulting in cost efficiencies.

(5) Beginning in FY15, Paragon capabilities are collapsed into Graywing hardware resulting in cost efficiencies. First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 5 / 1U018/19 Paragon-Graywing Shore
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	14.751	1.204	25.143	2.000	-	2.000	-	-	-	-	-	43.098
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	14.751	1.204	25.143	2.000	-	2.000	-	-	-	-	-	43.098
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	14.751	1.204	25.143	2.000	-	2.000	-	-	-	-	-	43.098
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Paragon is a classified Navy tactical signals intelligence frequency extension capability that will be integrated into Ship Signal Exploitation Equipment (SSEE) systems. This capability provides simultaneous detection, collection, processing, Information Operations and display of communication intelligence data from hostile, high threat and adversary platforms in select frequency ranges that are not prosecuted or countered today. Graywing is an advanced common data link system that will be integrated into SSEE Inc E and Inc F systems. It is a critical component of "Ballistic Missile Defense, Executive Committee, Anti-Submarine Warfare, Chief of Naval Operations, Executive Board Information Operation (IO) Countermeasure Red Flash" (details held at a higher classification level).
Shore based sites to be used for maintenance and operator training systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5					P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit					Modification Number / Title: 5 / 1U018/19 Paragon-Graywing Shore			
Models of Systems Affected: Various				Modification Type: Upgrade				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: 1U018/19 Paragon-Graywing Shore</i>													
B Kits													
Recurring													
1.1.1) LBTF Paragon Configuration System - Organic	2 / 5.954	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 5.954	
1.1.2) Graywing - NonOrganic ⁽⁶⁾	- / -	- / -	4 / 24.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 24.800	
1.1.3) LBTF Graywing Configuration System - NonOrganic	2 / 5.954	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 5.954	
1.1.4) LRIP Retrofit Kit - NonOrganic	1 / 2.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.100	
<i>Subtotal: Recurring</i>	- / 14.008	- / -	- / 24.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 38.808	
<i>Subtotal: 1U018/19 Paragon-Graywing Shore</i>	5 / 14.008	- / -	4 / 24.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 38.808	
<i>Subtotal: Procurement, All Modification Items</i>	- / 14.008	- / -	- / 24.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 38.808	
Support (All Modification Items)													
2.1) Production Support	- / 0.743	- / -	- / 0.343	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.086	
<i>Subtotal: Support</i>	- / 0.743	- / -	- / 0.343	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.086	
Installation													
<i>Modification Item 1 of 1: 1U018/19 Paragon-Graywing Shore</i>	- / 0.000	- / 1.204	- / -	- / 2.000	- / -	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / 3.204	
<i>Subtotal: Installation</i>	- / 0.000	- / 1.204	- / -	- / 2.000	- / -	- / 2.000	- / -	- / -	- / -	- / -	- / -	- / 3.204	
Total													
Total Cost (Procurement + Support + Installation)	14.751	1.204	25.143	2.000	-	2.000	-	-	-	-	-	43.098	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 5 / 1U018/19 Paragon-Graywing Shore

Modification Item 1 of 1: 1U018/19 Paragon-Graywing Shore

Manufacturer Information

Manufacturer Name: ARGON-LBTF Configuration - SHORE	Manufacturer Location: Fairfax, VA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jul 2016					
Delivery Dates		Jul 2017					

Installation Information

Method of Implementation: Shore:: Installation Name: Graywing

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	4 / 2.000	- / -	4 / 2.000	- / -	- / -	- / -	- / -	- / -	4 / 2.000
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 2.000	- / -	4 / 2.000	- / -	- / -	- / -	- / -	- / -	4 / 2.000

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Method of Implementation: Shore:: Installation Name: LBTF Graywing Configuration System

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 1.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 1.104
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 5 / 1U018/19 Paragon-Graywing Shore

Modification Item 1 of 1: 1U018/19 Paragon-Graywing Shore

Installation Information

Method of Implementation: Shore:: Installation Name: LBTF Graywing Configuration System

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 1.104	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.104

Installation Schedule

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

Method of Implementation: Shore:: Installation Name: LRIP Retrofit Kit

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	1 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.100
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.100

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Exhibit P-3a, Individual Modification: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5				P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit				Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	8.604	12.930	12.928	8.065	-	8.065	21.867	20.746	10.870	17.686	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	8.604	12.930	12.928	8.065	-	8.065	21.867	20.746	10.870	17.686	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	8.604	12.930	12.928	8.065	-	8.065	21.867	20.746	10.870	17.686	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Engineering Change Proposal (ECP)/Obsolescence procures Commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and end-of-life (EOL) equipment for the Ship's Signal Exploitation Equipment (SSEE) Increment F program. ECP incorporates P3I for the acquisition and localization of the latest Signals of Interest (SOI) and Information Operations (IO). ECP maintains and improves upon SSEE Increment F's capability and relevance within a rapidly evolving threat environment. ECP equipment will be used to enable TCS to meet its scalable and modular capacity.

[Blade Replacement Kits] Procurement of Blade Replacement Kits to address IBM/Lenovo server replacement (Lenovo servers are being sold to foreign owners). These kits will be able to support system Technical Refresh, Windows 10 operating system compliance and replace obsolete parts.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5					P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit					Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F			
Models of Systems Affected: SSEE Inc F				Modification Type: Upgrade				Related RDT&E PEs: 0304785N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F</i>													
B Kits													
Recurring													
1.1.1) Processing Upgrades (ECPs) - NonOrganic ⁽⁷⁾	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.070	10 / 1.090	12 / 1.356	12 / 1.380	Continuing	Continuing	
1.1.2) CUB Replacement (Cryptologic Unified Build) - Organic	1 / 5.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 5.520	
1.1.3) DRT - NonOrganic ⁽⁸⁾	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.776	10 / 0.990	13 / 1.339	14 / 1.470	Continuing	Continuing	
1.1.4) LRIP to FRP BackFit Kit - NonOrganic	1 / 2.123	3 / 6.036	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 8.159	
1.1.5) Red Falcon Upgrade Kits - NonOrganic ⁽⁹⁾	- / -	- / -	10 / 1.630	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.630	
1.1.6) TCS ECP IO Equipment - Organic	- / -	- / -	1 / 0.688	2 / 1.400	- / -	2 / 1.400	6 / 4.266	8 / 5.784	3 / 2.205	6 / 4.482	Continuing	Continuing	
1.1.7) TCS ECP DRT - Organic	- / -	- / -	1 / 0.507	2 / 1.032	- / -	2 / 1.032	6 / 3.144	8 / 4.256	3 / 1.623	6 / 3.300	Continuing	Continuing	
1.1.8) TCS ECP Red Falcon - Organic	- / -	- / -	1 / 0.219	2 / 0.446	- / -	2 / 0.446	6 / 1.356	8 / 1.840	3 / 0.702	6 / 1.434	Continuing	Continuing	
1.1.9) TCS ECP JSP - Organic	- / -	- / -	1 / 0.101	2 / 0.206	- / -	2 / 0.206	6 / 0.630	7 / 0.749	3 / 0.327	6 / 0.666	Continuing	Continuing	
1.1.10) TCS ECP Medusa - Organic	- / -	- / -	1 / 0.280	2 / 0.570	- / -	2 / 0.570	6 / 1.740	7 / 2.065	3 / 0.900	6 / 1.830	Continuing	Continuing	
1.1.11) Blade Replacement Kits - NonOrganic ⁽¹⁰⁾	- / -	8 / 5.584	11 / 4.950	6 / 2.742	- / -	6 / 2.742	13 / 6.045	- / -	- / -	- / -	- / -	38 / 19.321	
<i>Subtotal: Recurring</i>	- / 7.643	- / 11.620	- / 8.375	- / 6.396	- / -	- / 6.396	- / 19.027	- / 16.774	- / 8.452	- / 14.562	Continuing	Continuing	
<i>Subtotal: 1U014 Engineering Change Proposal (ECP) Increment F</i>	2 / 7.643	11 / 11.620	26 / 8.375	16 / 6.396	- / -	16 / 6.396	61 / 19.027	58 / 16.774	40 / 8.452	56 / 14.562	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.643	- / 11.620	- / 8.375	- / 6.396	- / -	- / 6.396	- / 19.027	- / 16.774	- / 8.452	- / 14.562	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 0.481	- / 0.321	- / 0.401	- / 0.381	- / -	- / 0.381	- / 1.118	- / 0.988	- / 0.499	- / 0.874	Continuing	Continuing	
2.2) Production Support Red Falcon Upgrade Kits	- / -	- / -	- / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.150	
2.3) DSA	- / 0.100	- / 0.989	- / 0.819	- / 0.507	- / -	- / 0.507	- / 1.284	- / 1.236	- / 1.089	- / 1.216	Continuing	Continuing	
2.4) DSA Red Falcon Upgrade Kits	- / -	- / -	- / 0.270	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.270	
<i>Subtotal: Support</i>	- / 0.581	- / 1.310	- / 1.640	- / 0.888	- / -	- / 0.888	- / 2.402	- / 2.224	- / 1.588	- / 2.090	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F</i>	- / 0.380	- / -	- / 2.913	- / 0.781	- / -	- / 0.781	- / 0.438	- / 1.748	- / 0.830	- / 1.034	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.380	- / -	- / 2.913	- / 0.781	- / -	- / 0.781	- / 0.438	- / 1.748	- / 0.830	- / 1.034	Continuing	Continuing	
Total													

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Models of Systems Affected: SSEE Inc F	Modification Type: Upgrade	Related RDT&E PEs: 0304785N
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Financial Plan	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
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
Total Cost (Procurement + Support + Installation)	8.604	12.930	12.928	8.065	-	8.065	21.867	20.746	10.870	17.686	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F

Manufacturer Information

Manufacturer Name: ARGON-LRIP to FRP Backfit Manufacturer Location: Fairfax, VA

Administrative Leadtime (in Months): 3 Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015						
Delivery Dates	Jan 2016						

Manufacturer Name: ARGON-ECP Inc F-Processing Upgrades Manufacturer Location: Fairfax, VA

Administrative Leadtime (in Months): 3 Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017				
Delivery Dates		Jan 2017	Jan 2018				

Manufacturer Name: ARGON - ECP INC F DRTs Manufacturer Location: Fairfax, VA

Administrative Leadtime (in Months): 3 Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Jan 2017				
Delivery Dates			Jan 2018				

Manufacturer Name: Classified Manufacturer/USAF - Red Falcon Manufacturer Location: TBD

Administrative Leadtime (in Months): 3 Production Leadtime (in Months): 7

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016					
Delivery Dates		Aug 2016					

Installation Information

Method of Implementation: Ship:: Installation Name: Processing Upgrades (ECPs)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.690	- / -	- / -	- / -	10 / 0.690

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F

Installation Information

Method of Implementation: Ship:: Installation Name: Processing Upgrades (ECPs)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.700	- / -	- / -	10 / 0.700
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.852	- / -	12 / 0.852
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.690	10 / 0.700	12 / 0.852	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	1	3	3	4	-	4	4	4	4	12	44
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	1	3	3	4	-	4	4	4	16	44

Method of Implementation: Ship:: Installation Name: DRT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.096	- / -	- / -	- / -	8 / 0.096
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.130	- / -	- / -	10 / 0.130
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.182	Continuing	Continuing
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.096	10 / 0.130	12 / 0.182	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F

Installation Information

Method of Implementation: Ship:: Installation Name: DRT

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	2	-	3	3	4	-	4	4	4	15	45
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	2	-	3	3	4	-	4	4	19	45

Method of Implementation: Ship:: Installation Name: LRIP to FRP BackFit Kit

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.380	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.380
FY 2015	- / -	- / -	3 / 1.983	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.983
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.380	- / -	3 / 1.983	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.363

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Out	1	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4

Method of Implementation: Ship:: Installation Name: Red Falcon Upgrade Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F

Installation Information

Method of Implementation: Ship:: Installation Name: Red Falcon Upgrade Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	10 / 0.370	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.370
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	10 / 0.370	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.370

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	-	-	-	-	-	-	-	-	4	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

Method of Implementation: IMO:: Installation Name: ECP INC F

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	8 / 0.560	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.560
FY 2016	- / -	- / -	- / -	11 / 0.781	- / -	11 / 0.781	- / -	- / -	- / -	- / -	- / -	11 / 0.781
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.438	- / -	- / -	- / -	- / -	6 / 0.438
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 0.962	- / -	- / -	- / -	13 / 0.962
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	8 / 0.560	11 / 0.781	- / -	11 / 0.781	6 / 0.438	13 / 0.962	- / -	- / -	- / -	38 / 2.741

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5	P-1 Line Item Number / Title: 2360 / Shipboard IW Exploit	Modification Number / Title: 6 / 1U014 Engineering Change Proposal (ECP) Increment F

Modification Item 1 of 1: 1U014 Engineering Change Proposal (ECP) Increment F

Installation Information

Method of Implementation: IMO:: Installation Name: ECP INC F

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	2	2	2	2	3	3	3	2	3	3	-	-	4	4	4	1	-	-	-	-	-	-	-	-	38
Out	-	-	-	-	-	-	-	2	2	2	2	3	3	3	2	3	3	-	-	4	4	4	1	-	-	-	-	-	-	-	38

Method of Implementation (Organic): CUB Replacement (Cryptologic Unified Build) - Not Installed	Installation Quantity: 1
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Method of Implementation (Organic): TCS ECP IO Equipment - Not Installed	Installation Quantity: 26
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Method of Implementation (Organic): TCS ECP DRT - Not Installed	Installation Quantity: 26
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Method of Implementation (Organic): TCS ECP Red Falcon - Not Installed	Installation Quantity: 26
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Method of Implementation (Organic): TCS ECP JSP - Not Installed	Installation Quantity: 25
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Method of Implementation (Organic): TCS ECP Medusa - Not Installed	Installation Quantity: 25
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Footnotes:

⁽⁷⁾ First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

⁽⁸⁾ Replacement of obsolete HITS/DRT Boxes to Next Generation HITS/DRT in support of SSEE Inc F. DRTs to be installed in conjunction with ECP Processing Upgrades as Kits.

⁽⁹⁾ Unit Cost of Red Falcon consists of the V(2) Upgrade kit and accompanying antenna.

⁽¹⁰⁾ The fluctuation in unit costs from FY15 to FY16 is due to Non-recurring engineering costs captured in FY15.

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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 02: Communications & Electronics Equip / BSA 5: Reconnaissance Equipment	P-1 Line Item Number / Title: 2361 / Automatic Identification System (AIS)
--	--

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	4.342	0.164	0.152	0.958	-	0.958	0.504	1.655	2.577	0.813	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	4.342	0.164	0.152	0.958	-	0.958	0.504	1.655	2.577	0.813	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	4.342	0.164	0.152	0.958	-	0.958	0.504	1.655	2.577	0.813	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Automatic Identification System (AIS) by \$0.04M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

1U030: Automatic Identification System (AIS) is an international maritime Very High Frequency (VHF) communication system that allows ships to exchange information (machine to machine) on navigation (position, course, speed, etc), ship information (ship name, call sign, length/beam), cargo information (draft, type, destination, route, estimated time of arrival), and messaging (safety, text). This technology improves capability in three diverse areas: (a) situational awareness/common operational picture, (b) navigation/safety of ship and, (c) other intelligence gathering/correlation. AIS will procure Commercial Off-The-Shelf (COTS) AIS gear and install them on Navy warships. This provides the fleet with an operating capability to send unclassified data to the Maritime Operations Center (MOC). AIS provides an integrated AIS capability on force level United States (US) surface warships and submarines, including interfaces with ship's Global Command and Control System-Maritime/Common Operational Picture, and combat systems as defined by fleet requirements and concept of operations. The program provides Maritime Domain Awareness (MDA) AIS Sensor Server equipment to the MOC for publishing AIS data to the MDA Data Sharing Community of Interest. Funds will procure and install AIS systems for ships, submarines and shore sites consisting of a combination of modified COTS and government/commercial software, such as omni-directional VHF, Global Positioning System antennas, AIS transponders, displays and associated cables, servers, power supplies, laptop computers, junction boxes, switches and radio frequency couplers.

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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 02: Communications & Electronics Equip /
 BSA 5: Reconnaissance Equipment **P-1 Line Item Number / Title:**
 2361 / Automatic Identification System (AIS)

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	1U030 Automatic Identification System (AIS)	P-5a		- / 4.342	- / 0.164	- / 0.152	- / 0.958	- / -	- / 0.958
P-40	Total Gross/Weapon System Cost			- / 4.342	- / 0.164	- / 0.152	- / 0.958	- / -	- / 0.958

*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:
 FY17 funds provide for the procurement of one AIS submarine system, as well as the initial Ship Class Drawings and integration testing to support AIS installations on SSBN class submarines.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy															Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5										P-1 Line Item Number / Title: 2361 / Automatic Identification System (AIS)					Aggregated Items Title: 1U030 Automatic Identification System (AIS)				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) 1U030 Automatic Identification Systems (AIS)																				
1.1) AIS procurement (1)(†)	A		62.500	14	0.875	89.000	1	0.089	-	-	-	287.000	1	0.287	-	-	-	287.000	1	0.287
1.2) Production Support	A		-	-	0.619	-	-	0.075	-	-	-	-	-	0.016	-	-	-	-	-	0.016
1.3) Installation (2)	A		-	-	2.608	-	-	-	-	-	0.142	-	-	-	-	-	-	-	-	-
1.4) DSA (3)	A		-	-	0.240	-	-	-	-	-	0.010	-	-	0.655	-	-	-	-	-	0.655
Subtotal: 1) 1U030 Automatic Identification Systems (AIS)			-	-	4.342	-	-	0.164	-	-	0.152	-	-	0.958	-	-	-	-	-	0.958
Total			-	-	4.342	-	-	0.164	-	-	0.152	-	-	0.958	-	-	-	-	-	0.958

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

(†) indicates the presence of a P-5a

Footnotes:

(1) FY17 procurement costs include one-time integration costs required to ensure that the AIS system will function with the combat system currently used on the SSBN platform.

(2) DSA and Installation costs vary depending on the submarine class and hull being installed on and the location of the installation.

(3) FY17 DSA funds are for the initial Ship Class Drawings to include Ship Alterations (SHIPALTs) for 14 SSBNs and the associated variances between the hulls.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 5			P-1 Line Item Number / Title: 2361 / Automatic Identification System (AIS)					Aggregated Items: 1U030 Automatic Identification System (AIS)				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) 1U030 Automatic Identification Systems (AIS)												
1.1) AIS procurement ⁽¹⁾		2015	SRC / Atlanta, GA	C / FFP	SSC Atlantic	Nov 2014	Sep 2015	1	89.000	Y		
1.1) AIS procurement ⁽¹⁾		2017	SRC / Atlanta, GA	C / FFP	SSC Atlantic	Nov 2016	Sep 2017	1	287.000	Y		

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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 02: Communications & Electronics Equip / BSA 6: Submarine Surveillance Equipment	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604503N, 0603562N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	838.326	36.938	78.816	-	-	-	-	-	-	-	-	954.080
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	838.326	36.938	78.816	-	-	-	-	-	-	-	-	954.080
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	838.326	36.938	78.816	-	-	-	-	-	-	-	-	954.080

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	4.684	1.972	-	-	-	-	-	-	-	-	6.656
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Note: Submarine Electromagnetic Systems including Imaging, Electronic Warfare and Radar programs are managed by PMS435. Imaging Budget Line Item 0831 and Electronic Warfare Budget Line Item 2560 (including Radar) OPN funds will consolidate under BLI 0840 in FY17 and out.

(U) The Submarine Support Equipment Program (SSEP) was established to develop and support systems which provide the capability to exploit signal intercepts for tactical support and early warning of threat sensors. The Electronic Warfare Support (ES) Operational Requirements Document (ORD) Serial. No. 570-77-00 dated 20 Dec. 2000, established funding to procure AN/BLQ-10 Electronic Warfare Support and Improved Communication Acquisition/Direction Finding (ICADF) systems to provide a modern ES capability to LOS ANGELES, SEAWOLF, and SSGN Class submarines. Funds procure AN/BLQ-10B(V) Non-Recurring Engineering (NRE), Pre-Production Units (PPU) and augmentation systems for ES Modernization upgrades for all submarine platforms. Funds also procure modification kits for the AN/BLQ-10(V) ES System, VIRGINIA Class ES Modernization upgrades, Reliability & Maintainability, obsolescence and Operational Field Change Kits for the legacy AN/WLR-8(V)2 ESM system, and the legacy AN/BRD-7 direction finding system. Funds buy unique equipment in limited quantities that are maintained in a pool and rotated among attack submarines as dictated by scheduled operations and to provide specific capability improvements to major SSN sensor systems.

ML003 - SSEP special support equipment allows the procurement of special purpose test equipment utilized by the Type Commander Groom Teams. Exact quantities vary from year to year based on Fleet requirements.

ML005 - Procures Legacy Submarine Electronic Surveillance Measures (SubESM) AN/BRD-7 Reliability and Maintainability (R&M) obsolescence and operational Field Change Kits, e.g., Analog relay replacement, antenna cabling replacement, related Hull, Mechanical & Electrical (H,M&E) sail components and associated Integrated Logistics Support (ILS), and technical data.

ML007 - Procures the ICADF communications direction finding system below deck units for installation on LOS ANGELES and SEAWOLF Class submarines.

ML008 - Procures the ICADF Multi-Function Modular Mast (MMM) Antenna for installation on LOS ANGELES Class submarines. Procures spare MMMs to support fleet replacement in the event of catastrophic failure.

ML009 - Procures Capability Insertions for installation on LOS ANGELES, SSGN, and SEAWOLF Class submarines that provide incremental improvements to the AN/BLQ-10(V) baseline system for improved capability against new threats, to reduce size, procurement costs, power requirements and maintenance, while increasing system availability. Includes: Embedded National Tactical Receiver (ENTR)/Generic

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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 02: Communications & Electronics Equip / BSA 6: Submarine Surveillance Equipment		P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604503N, 0603562N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Area Limitation Environment (GALE) upgrade, Info Assurance (IA)/Solaris upgrade, Exterior Communication System (ECS) Point to Point upgrade, Low Probability of Intercept (LPI) Radar Receiver, and associated Integrated Logistics Support (ILS), and technical data.</p> <p>ML010 - Procures Technical Insertions (TI) for installation on LOS ANGELES, SSGN, SEAWOLF, and VIRGINIA Class submarines that provide updates to the AN/BLQ-10(V) configuration baseline which incorporate current Commercial off the Shelf (COTS) processing technology and software to account for obsolescence avoidance, and Reliability, Maintainability and Availability (RMA) and associated Integrated Logistics Support (ILS) and technical data. Hardware builds include supporting platform level Submarine Warfare Federated Tactical Systems (SWFTS) interfaces. TI upgrade kits are procured under various configurations in each fiscal year including required NRE for TI-12, TI-14, TI-16, and TI-18.</p> <p>ML011 -Procures Legacy Submarine Electronic Surveillance Measures (SubESM) including AN/WLR-8 Reliability and Maintainability (R&M) Field Change Kits and other materials for Obsolescence Mitigation, e.g., Digital Display Unit (DDU) obsolescence upgrade, Solid State Memory, Heat Dissipation improvement, related H,M&E sail components and associated Integrated Logistics Support (ILS), and technical data.</p> <p>ML015 - Procures the AN/BLQ-10(V)2/3/4 ES System for installation on LOS ANGELES, SEAWOLF, and SSGN Class submarines.</p> <p>ML017 - Procures AN/BLQ-10(V) and ICADF subsystem Product Improvement Field Change Kits including: emergent Engineering Changes, SIGINT carry-on equipment racks, SWFTS upgrades and associated Integrated Logistics Support (ILS) and technical data. Provide AN/BLQ-10 intermediate level repairs, changes and maintenance activities and associated materials that improve the overall Reliability, Maintainability and Availability of fielded SubESM systems. Procures maintenance and sustainment efforts for AN/BLQ-10 active, deploying fleet assets. Increased funding starting FY16 provided to address growing obsolescence and reliability issues as basic AN/BLQ-10 system continues to age.</p> <p>ML018 - Funds procure ES Modernization upgrades to the VIRGINIA Class AN/BLQ-10(V)1 ES System including Photonics ES Product Improvement (PEPI-3), PATRIOT Phase B range finder and Technical Insertions (TI).</p> <p>ML019 - Procures ESM spares to provide Ready for Issue (RFI) assets to maintain system operational availability.</p> <p>ML020 - Funds procure AN/BLQ-10B(V) Non-Reoccurring Engineering (NRE) and modernization kits for ES Modernization upgrades on all SSN/SSGN platforms. OPNAV direction provided for Next Generation EW Digital Submarine Electronic Warfare System Serial N97/12U144403 dated 17 June 12. The AN/BLQ-10B(V) efforts will transform the current AN/BLQ-10(V) system to a digital hardware system that will enable a sustainable, cost effective, software application based modernization process for the rapid fielding of required capabilities to address changing and emerging threats in the Radio Frequency (RF) spectrum. AN/BLQ-10B(V) incorporates a five layered approach including: RF, Digitizing, Interface, Processing, and Display. These layers serve as building blocks to the AN/BLQ-10(V) Modular, Open system, Scalable Architecture (MOSA) approach.</p> <p>ML021 - Procure BPS 15/16 Reliability and Maintainability (R&M) Field Change Kits and other materials for Obsolescence Mitigation. Provide in-service and systems engineering, logistics, material, configuration management, quality assurance, installation and test certification support only for the Submarine Surface Navigation (AN/BPS-15/16) Radar. Also provides for interface with the conjoined Voyage Management System (VMS) and Electronic Chart & Display Information System - Navy (ECDIS-N). BPS 15/16 funding transferred as zero sum adjustment from BLI 0670 where these requirements were previously supported. Transfer done to provide more focused, submarine centric oversight of these ship safety required systems.</p> <p>ML830 - Production Engineering funds provide the following functions: value engineering; review and evaluation of production design data and documentation; production configuration control; maintenance engineering efforts designed and incorporated into the production manufacturing process, and other related engineering functions that are integral to all production ES Systems and upgrades.</p> <p>ML927 - Provides for the Installation of Equipment including Fleet Modernization Program Installations for shipboard systems.</p> <p>ML4M7 - Provides for the Installation of non-Fleet Modernization Program Equipment.</p>		

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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 02: Communications & Electronics Equip / BSA 6: Submarine Surveillance Equipment

P-1 Line Item Number / Title:
2560 / Submarine Supt Equip Prog

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604503N, 0603562N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Supt Equip Prog	P-5a		- / 32.101	- / 5.065	- / 5.401	- / -	- / -	- / -
P-3a	1 / ML007 ICADF (SHIPALT (ES SYSTEM COMMS DF))			- / 140.942	- / 2.407	- / 1.223	- / -	- / -	- / -
P-3a	2 / ML008 ICADF MMM ANTENNA (SHIPALT)			- / 95.232	- / 1.414	- / 10.081	- / -	- / -	- / -
P-3a	3 / ML010 TECHNICAL INSERTION (SHIPALT)			- / 38.568	- / 10.409	- / 16.690	- / -	- / -	- / -
P-3a	4 / ML015 AN/BLQ-10(V) SSN ES SYSTEM (SHIPALT)			- / 461.729	- / -	- / -	- / -	- / -	- / -
P-3a	5 / ML017 AN/BLQ-10(V) FIELD CHANGE KITS (ORDALT)			- / 21.460	- / 4.699	- / 6.887	- / -	- / -	- / -
P-3a	6 / ML018 VA CLASS ES MODERNIZATION PEPI-3 (SHIPALT)			- / 23.663	- / -	- / 0.409	- / -	- / -	- / -
P-3a	7 / ML018 VA CLASS ES MODERNIZATION PATRIOT (SHIPALT)			- / 13.951	- / 2.467	- / 3.846	- / -	- / -	- / -
P-3a	8 / ML018 VA CLASS ES MODERNIZATION SEI/CMF (SHIPALT)			- / 4.348	- / -	- / -	- / -	- / -	- / -
P-3a	9 / ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION (SHIPALT)			- / 6.332	- / -	- / -	- / -	- / -	- / -
P-3a	10 / ML020 AN/BLQ-10B (V) (SHIPALT)			- / 0.000	- / 10.477	- / 34.279	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 838.326	- / 36.938	- / 78.816	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Supt Equip Prog	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / ML007 ICADF (SHIPALT (ES SYSTEM COMMS DF))			- / -	- / -	- / -	- / -	- / -	- / 144.572
P-3a	2 / ML008 ICADF MMM ANTENNA (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 106.727
P-3a	3 / ML010 TECHNICAL INSERTION (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 65.667
P-3a	4 / ML015 AN/BLQ-10(V) SSN ES SYSTEM (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 461.729
P-3a	5 / ML017 AN/BLQ-10(V) FIELD CHANGE KITS (ORDALT)			- / -	- / -	- / -	- / -	- / -	- / 33.046
P-3a	6 / ML018 VA CLASS ES MODERNIZATION PEPI-3 (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 24.072
P-3a	7 / ML018 VA CLASS ES MODERNIZATION PATRIOT (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 20.264
P-3a	8 / ML018 VA CLASS ES MODERNIZATION SEI/CMF (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 4.348
P-3a	9 / ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 6.332
P-3a	10 / ML020 AN/BLQ-10B (V) (SHIPALT)			- / -	- / -	- / -	- / -	- / -	- / 44.756
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 954.080

*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:
Note: Submarine Electromagnetic Systems including Imaging, Electronic Warfare and Radar programs are managed by PMS435. Imaging Budget Line Item 0831 and Electronic Warfare Budget Line Item 2560 (including Radar) OPN funds will consolidate under BLI 0840 in FY17 and out.

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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 02: Communications & Electronics Equip / BSA 6: Submarine Surveillance Equipment		P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604503N, 0603562N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6 **P-1 Line Item Number / Title:** 2560 / Submarine Supt Equip Prog **Aggregated Items Title:** Submarine Supt Equip Prog

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) ML003 SSEP SPECIAL SUPPORT EQUIPMENT																				
1.1) SPECIAL SUPPORT EQUIPMENT	A		-	-	2.684	-	-	0.318	-	-	0.323	-	-	-	-	-	-	-	-	-
Subtotal: 1) ML003 SSEP SPECIAL SUPPORT EQUIPMENT			-	-	2.684	-	-	0.318	-	-	0.323	-	-	-	-	-	-	-	-	-
2) ML005 AN/BRD-7 FCKS																				
2.1) AN/BRD-7 FIELD CHANGE KITS	A		-	-	2.600	-	-	0.244	-	-	0.248	-	-	-	-	-	-	-	-	-
Subtotal: 2) ML005 AN/BRD-7 FCKS			-	-	2.600	-	-	0.244	-	-	0.248	-	-	-	-	-	-	-	-	-
3) ML011 AN/WLR-8 R&M FIELD CHANGE KITS																				
3.1) AN/WLR-8 R&M FCKS	A		-	-	5.616	-	-	0.377	-	-	0.383	-	-	-	-	-	-	-	-	-
Subtotal: 3) ML011 AN/WLR-8 R&M FIELD CHANGE KITS			-	-	5.616	-	-	0.377	-	-	0.383	-	-	-	-	-	-	-	-	-
4) ML019 ESM SPARES																				
4.1) ESM SPARES ^(†)	A		828,400.00	5	4.142	894,000.00	1	0.894	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) ML019 ESM SPARES			-	-	4.142	-	-	0.894	-	-	-	-	-	-	-	-	-	-	-	-
5) ML830 PRODUCTION ENGINEERING																				
5.1) PRODUCTION ENGINEERING	A		-	-	17.059	-	-	3.232	-	-	3.284	-	-	-	-	-	-	-	-	-
Subtotal: 5) ML830 PRODUCTION ENGINEERING			-	-	17.059	-	-	3.232	-	-	3.284	-	-	-	-	-	-	-	-	-
6) ML021 AN/BPS 15/16 FCKs⁽¹⁾																				
6.1) AN/BPS 15/16 FCKs	A		-	-	-	-	-	-	-	-	1.163	-	-	-	-	-	-	-	-	-
Subtotal: 6) ML021 AN/BPS 15/16 FCKs			-	-	0.000	-	-	-	-	-	1.163	-	-	-	-	-	-	-	-	-
Total			-	-	32.101	-	-	5.065	-	-	5.401	-	-	-	-	-	-	-	-	-

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

(†) indicates the presence of a P-5a

Footnotes:

(1) Zero sum transfer of funds from BLI 0670. Transfer of funding conducted to provide more focused, submarine centric oversight of radar functionality.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Aggregated Items: Submarine Supt Equip Prog
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
4) ML019 ESM SPARES												
4.1) ESM SPARES		2014	Lockheed Martin / Syracuse, NY	SS / FP	NMSO	Mar 2014	Nov 2015	2	843,000.00	N		Oct 2013
4.1) ESM SPARES		2015	Lockheed Martin / Syracuse, NY	SS / FP	NMSO	Mar 2015	Nov 2016	1	894,000.00	N		Oct 2014

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 1 / ML007 ICADF
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	140.942	2.407	1.223	-	-	-	-	-	-	-	-	144.572
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	140.942	2.407	1.223	-	-	-	-	-	-	-	-	144.572
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	140.942	2.407	1.223	-	-	-	-	-	-	-	-	144.572
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides advanced low-band COMINT Direction Finding (DF) capability compatible with CLASSIC TROLL and AN/BLQ-10 SSN ES system. Replaces obsolete AN/BRD-7 below decks equipment with modern, open architecture system compliant with Maritime Cryptologic Architecture.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 1 / ML007 ICADF
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Models of Systems Affected: ICADF	Modification Type: SHIPALT (ES SYSTEM COMMS DF)	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> ML007 ICADF												
B Kits												
Recurring												
1.1.1) ICADF - NonOrganic	27 / 91.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 91.249
1.1.2) NIOC TRANSFER EQUIPMENT - NonOrganic ⁽²⁾	11 / 0.000	2 / -	1 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / -
<i>Subtotal: Recurring</i>	- / 91.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 91.249
<i>Subtotal: ML007 ICADF</i>	38 / 91.249	2 / -	1 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	41 / 91.249
<i>Subtotal: Procurement, All Modification Items</i>	- / 91.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 91.249
Installation												
<i>Modification Item 1 of 1:</i> ML007 ICADF												
<i>Subtotal: Installation</i>	- / 49.693	- / 2.407	- / 1.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 53.323
Total												
Total Cost (Procurement + Support + Installation)	140.942	2.407	1.223	-	-	-	-	-	-	-	-	144.572

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 1 / ML007 ICADF

Modification Item 1 of 1: ML007 ICADF

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 20

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT (ES SYSTEM COMMS DF):: Installation Name: ICADF

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	27 / 35.644	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	27 / 35.644
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	27 / 35.644	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 35.644

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27
Out	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27

Method of Implementation: AIT:: Installation Name: NIOC TRANSFER EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	11 / 14.049	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	11 / 14.049
FY 2015	- / -	2 / 2.407	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.407

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 1 / ML007 ICADF

Modification Item 1 of 1: ML007 ICADF

Installation Information

Method of Implementation: AIT:: Installation Name: NIOC TRANSFER EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	1 / 1.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.223
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	11 / 14.049	2 / 2.407	1 / 1.223	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 17.679

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	11	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Out	11	-	-	1	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14

Footnotes:

⁽²⁾ Transfer Units are refurbished after receipt from NIOC prior to installation, no procurement cost associated.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 2 / ML008 ICADF MMM ANTENNA
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	95.232	1.414	10.081	-	-	-	-	-	-	-	-	106.727
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	95.232	1.414	10.081	-	-	-	-	-	-	-	-	106.727
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	95.232	1.414	10.081	-	-	-	-	-	-	-	-	106.727

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Synchronizes improved low-band direction finding SIGINT sensor with coordinated N77/CNSG CLASSIC TROLL procurement. Replaces obsolete AN/BRD-7 antenna equipment with modern, open-architecture system compliant with Maritime Cryptologic Architecture. Procurement of FY16 spares required to support catastrophic failure of installed fleet assets and resultant loss of Ao and mission capability.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6 **P-1 Line Item Number / Title:** 2560 / Submarine Supt Equip Prog **Modification Number / Title:** 2 / ML008 ICADF MMM ANTENNA

Models of Systems Affected: MULTI FUNCTION MODULAR MAST **Modification Type:** SHIPALT **Related RDT&E PEs:**

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> ML008 ICADF MMM ANTENNA												
B Kits												
Recurring												
1.1.1) Multi Functional Modular Mast - NonOrganic	19 / 76.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 76.300
1.1.2) MMM Spare - Organic	- / -	- / -	2 / 7.804	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 7.804
<i>Subtotal: Recurring</i>	- / 76.300	- / -	- / 7.804	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 84.104
<i>Subtotal: ML008 ICADF MMM ANTENNA</i>	19 / 76.300	- / -	2 / 7.804	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 84.104
<i>Subtotal: Procurement, All Modification Items</i>	- / 76.300	- / -	- / 7.804	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 84.104
Installation												
<i>Modification Item 1 of 1:</i> ML008 ICADF MMM ANTENNA	- / 18.932	- / 1.414	- / 2.277	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.623
<i>Subtotal: Installation</i>	- / 18.932	- / 1.414	- / 2.277	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 22.623
Total												
Total Cost (Procurement + Support + Installation)	95.232	1.414	10.081	-	-	-	-	-	-	-	-	106.727

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 2 / ML008 ICADF MMM ANTENNA

Modification Item 1 of 1: ML008 ICADF MMM ANTENNA

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 20

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 20

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016					
Delivery Dates		Nov 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: Multi Functional Modular Mast

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	14 / 18.932	1 / 1.414	2 / 2.277	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	17 / 22.623
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	14 / 18.932	1 / 1.414	2 / 2.277	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 22.623

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	14	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17
Out	14	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 2 / ML008 ICADF MMM ANTENNA
Modification Item 1 of 1: ML008 ICADF MMM ANTENNA		
Installation Information		
Method of Implementation (Organic): MMM Spare - Not Installed		Installation Quantity: 2

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 3 / ML010 TECHNICAL INSERTION				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	38.568	10.409	16.690	-	-	-	-	-	-	-	-	65.667
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	38.568	10.409	16.690	-	-	-	-	-	-	-	-	65.667
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	38.568	10.409	16.690	-	-	-	-	-	-	-	-	65.667

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

TI Processor upgrade provides additional computing capability over previous TI baselines and replaces out of production systems for installation on LOS ANGELES, SSGN, SEAWOLF, and VIRGINIA Class submarines. Provides updates to the AN/BLQ-10 (V) configuration baseline which incorporates current Commercial off the Shelf (COTS) processing technology and software to account for obsolescence avoidance, and Reliability, Maintainability and Availability (RMA) and associated Integrated Logistics Support (ILS) and technical data. Hardware builds include supporting platform level Submarine Warfare Federated Tactical Systems (SWFTS) interfaces.

Capability and Technical Insertion for AN/BLQ-10(V) provide spiral improvements to the baseline system which are designed to counter against new and evolving threat emitters. This effort is the transition of the EW AN/BLQ-10 CI/TI modernization process to synchronize with SWFTS TI/APB process and model.

TI-16 baseline represents a significant change and increase in capabilities to enable software processing of digital data provided by EW Next Generation Architecture (NGA) hardware. TI-16 introduces the EW Server system that centralizes in software many functions that were previously handled in older, less capable hardware systems. Vastly increases coordination and dissemination of data.

Due to proliferation of multiple, older TI configurations, TI-16 still required to procure significant hardware updates to baseline older systems prior to installing new capabilities.

Increase in TI capability and baselining of older system to support modernization account for slight increase in unit cost in FY16.

TI-16 is a concurrent requirement for installing EW NGA hardware such as EW Tactical Improvement Set (ETIS).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog						Modification Number / Title: 3 / ML010 TECHNICAL INSERTION			
Models of Systems Affected: TECHNICAL INSERTION				Modification Type: SHIPALT						Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: ML010 TECHNICAL INSERTION</i>													
B Kits													
Recurring													
1.1.1) TI/APB - NonOrganic ⁽³⁾	16 / 11.832	4 / 6.402	7 / 12.619	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 30.853	
<i>Subtotal: Recurring</i>	- / 11.832	- / 6.402	- / 12.619	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.853	
<i>Subtotal: ML010 TECHNICAL INSERTION</i>	16 / 11.832	4 / 6.402	7 / 12.619	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 30.853	
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.832	- / 6.402	- / 12.619	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.853	
Support (All Modification Items)													
2.1) TI/APB NRE	- / 21.809	- / 2.325	- / 2.362	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.496	
2.2) TI/APB CCM	3 / 2.565	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.565	
<i>Subtotal: Support</i>	- / 24.374	- / 2.325	- / 2.362	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 29.061	
Installation													
<i>Modification Item 1 of 1: ML010 TECHNICAL INSERTION</i>	- / 2.362	- / 1.682	- / 1.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.753	
<i>Subtotal: Installation</i>	- / 2.362	- / 1.682	- / 1.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.753	
Total													
Total Cost (Procurement + Support + Installation)	38.568	10.409	16.690	-	-	-	-	-	-	-	-	65.667	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 3 / ML010 TECHNICAL INSERTION

Modification Item 1 of 1: ML010 TECHNICAL INSERTION

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2016	Mar 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: TI/APB

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	12 / 2.362	4 / 1.682	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	16 / 4.044
FY 2015	- / -	- / -	4 / 1.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.709
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	12 / 2.362	4 / 1.682	4 / 1.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 5.753

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	12	-	2	1	1	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Out	12	-	2	1	1	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20

Footnotes:

⁽³⁾ Unit Cost increase in FY16 due to increased capability being added with EW Server System as well as starting age of installed equipment requiring additional modifications/updates to support modernization.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 4 / ML015 AN/BLQ-10(V) SSN ES SYSTEM				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	461.729	-	-	-	-	-	-	-	-	-	-	461.729
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	461.729	-	-	-	-	-	-	-	-	-	-	461.729
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	461.729	-	-	-	-	-	-	-	-	-	-	461.729
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides fully integrated, covert, forward area radar signal intercept and ID capability for installation on LOS ANGELES, SEAWOLF and SSGN Class Submarines.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6					P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog					Modification Number / Title: 4 / ML015 AN/BLQ-10(V) SSN ES SYSTEM			
Models of Systems Affected: AN/BLQ-10(V)2/3/4				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: ML015 AN/BLQ-10(V) SSN ES SYSTEM</i>													
B Kits													
Recurring													
1.1.1) AN/BLQ-10(V) SSN ES SYSTEM - NonOrganic	44 / 272.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 272.004	
1.1.2) AN/BLQ-10(V) SSN ES SYSTEM CCM - Organic	1 / 8.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 8.750	
<i>Subtotal: Recurring</i>	<i>- / 280.754</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 280.754</i>	
<i>Subtotal: ML015 AN/BLQ-10(V) SSN ES SYSTEM</i>	<i>45 / 280.754</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>45 / 280.754</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 280.754</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 280.754</i>	
Installation													
<i>Modification Item 1 of 1: ML015 AN/BLQ-10(V) SSN ES SYSTEM</i>													
<i>Subtotal: Installation</i>	<i>- / 180.975</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 180.975</i>	
Total													
Total Cost (Procurement + Support + Installation)	461.729	-	-	-	-	-	-	-	-	-	-	461.729	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 4 / ML015 AN/BLQ-10(V) SSN ES SYSTEM

Modification Item 1 of 1: ML015 AN/BLQ-10(V) SSN ES SYSTEM

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 26

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: AN/BLQ-10(V) SSN ES SYSTEM

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	43 / 180.975	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	43 / 180.975
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	43 / 180.975	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 180.975

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Out	43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43

Method of Implementation (Organic): AN/BLQ-10(V) SSN ES SYSTEM CCM - Not Installed

Installation Quantity: 1

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 5 / ML017 ANBLQ-10(V) FIELD CHANGE KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	21.460	4.699	6.887	-	-	-	-	-	-	-	-	33.046
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	21.460	4.699	6.887	-	-	-	-	-	-	-	-	33.046
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	21.460	4.699	6.887	-	-	-	-	-	-	-	-	33.046
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures AN/BLQ-10(V) and ICADF subsystem Product Improvement Field Change Kits (FCK). AN/BLQ-10 FCKs are procured in variable quantities and types, and are bought from a variety of vendors each fiscal year.

Increased funding starting in FY16 provided to address growing obsolescence and reliability issues as basic AN/BLQ-10 system continues to age.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog						Modification Number / Title: 5 / ML017 ANBLQ-10(V) FIELD CHANGE KITS			
Models of Systems Affected: AN/BLQ-10(V)				Modification Type: ORDALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: ML017 ANBLQ-10(V) FIELD CHANGE KITS</i>													
B Kits													
Recurring													
1.1.1) AN/BLQ-10(V) FCKs - NonOrganic ⁽⁴⁾	3 / 20.387	1 / 4.304	1 / 6.196	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 30.887	
<i>Subtotal: Recurring</i>	- / 20.387	- / 4.304	- / 6.196	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.887	
<i>Subtotal: ML017 ANBLQ-10(V) FIELD CHANGE KITS</i>	3 / 20.387	1 / 4.304	1 / 6.196	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 30.887	
<i>Subtotal: Procurement, All Modification Items</i>	- / 20.387	- / 4.304	- / 6.196	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 30.887	
Installation													
<i>Modification Item 1 of 1: ML017 ANBLQ-10(V) FIELD CHANGE KITS</i>													
<i>Subtotal: Installation</i>	- / 1.073	- / 0.395	- / 0.691	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.159	
Total													
Total Cost (Procurement + Support + Installation)	21.460	4.699	6.887	-	-	-	-	-	-	-	-	33.046	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 5 / ML017 ANBLQ-10(V) FIELD CHANGE KITS

Modification Item 1 of 1: ML017 ANBLQ-10(V) FIELD CHANGE KITS

Manufacturer Information							
Manufacturer Name: Multiple Vendors				Manufacturer Location: Various			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Jun 2015	Jun 2016					

Installation Information

Method of Implementation: AIT:: Installation Name: AN/BLQ-10(V) FCKs

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	3 / 1.073	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 1.073
FY 2015	- / -	1 / 0.395	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.395
FY 2016	- / -	- / -	1 / 0.691	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.691
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 1.073	1 / 0.395	1 / 0.691	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.159

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	3	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Out	3	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5

Footnotes:
 (4) FY16 increase in funding procures intermediate level repair and change material. Variable quantities and types are bought each year.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 6 / ML018 VA CLASS ES MODERNIZATION PEPI-3				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	23.663	-	0.409	-	-	-	-	-	-	-	-	24.072
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	23.663	-	0.409	-	-	-	-	-	-	-	-	24.072
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	23.663	-	0.409	-	-	-	-	-	-	-	-	24.072
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures ES Modernization upgrade of Photonics ESM Product Improvement (PEPI-3) capabilities to the VIRGINIA CLASS AN/BLQ-10(V)1 EW System.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 6 / ML018 VA CLASS ES MODERNIZATION PEPI-3

Models of Systems Affected: VA PEPI-3	Modification Type: SHIPALT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> ML018 VA CLASS ES MODERNIZATION PEPI-3												
B Kits												
Recurring												
1.1.1) VA PEPI-3 - NonOrganic	5 / 21.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 21.249
<i>Subtotal: Recurring</i>	- / 21.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.249
<i>Subtotal: ML018 VA CLASS ES MODERNIZATION PEPI-3</i>	5 / 21.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 21.249
<i>Subtotal: Procurement, All Modification Items</i>	- / 21.249	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.249
Installation												
<i>Modification Item 1 of 1:</i> ML018 VA CLASS ES MODERNIZATION PEPI-3	- / 2.414	- / -	- / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.823
<i>Subtotal: Installation</i>	- / 2.414	- / -	- / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.823
Total												
Total Cost (Procurement + Support + Installation)	23.663	-	0.409	-	-	-	-	-	-	-	-	24.072

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 6 / ML018 VA CLASS ES MODERNIZATION PEPI-3

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION PEPI-3

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 20

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: VA PEPI-3

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	3 / 2.414	- / -	2 / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5 / 2.823
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 2.414	- / -	2 / 0.409	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.823

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
Out	3	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 7 / ML018 VA CLASS ES MODERNIZATION PATRIOT				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	13.951	2.467	3.846	-	-	-	-	-	-	-	-	20.264
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	13.951	2.467	3.846	-	-	-	-	-	-	-	-	20.264
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	13.951	2.467	3.846	-	-	-	-	-	-	-	-	20.264
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures Electronic Warfare Support (ES) Modernization upgrade of PATRIOT Phase B RADAR range finder for incorporation into the VIRGINIA CLASS Photonics Mast.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 7 / ML018 VA CLASS ES MODERNIZATION PATRIOT

Models of Systems Affected: VA PATRIOT	Modification Type: SHIPALT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION PATRIOT												
B Kits												
Recurring												
1.1.1) VA PATRIOT - NonOrganic	9 / 12.278	2 / 2.300	3 / 3.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 18.083
<i>Subtotal: Recurring</i>	- / 12.278	- / 2.300	- / 3.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.083
<i>Subtotal: ML018 VA CLASS ES MODERNIZATION PATRIOT</i>	9 / 12.278	2 / 2.300	3 / 3.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 18.083
<i>Subtotal: Procurement, All Modification Items</i>	- / 12.278	- / 2.300	- / 3.505	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 18.083

Installation

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION PATRIOT	- / 1.673	- / 0.167	- / 0.341	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.181
<i>Subtotal: Installation</i>	- / 1.673	- / 0.167	- / 0.341	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.181

Total

Total Cost (Procurement + Support + Installation)	13.951	2.467	3.846	-	-	-	-	-	-	-	-	20.264
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UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 7 / ML018 VA CLASS ES MODERNIZATION PATRIOT

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION PATRIOT

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 19

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

Installation Information

Method of Implementation: AIT:: Installation Name: VA PATRIOT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	6 / 1.673	1 / 0.167	2 / 0.341	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 2.181
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	6 / 1.673	1 / 0.167	2 / 0.341	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.181

Installation Schedule

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 8 / ML018 VA CLASS ES MODERNIZATION SEI/CMF				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	4.348	-	-	-	-	-	-	-	-	-	-	4.348
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	4.348	-	-	-	-	-	-	-	-	-	-	4.348
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	4.348	-	-	-	-	-	-	-	-	-	-	4.348
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures Capability Insertion Auto Signal Emitter ID (SEI)/Common Message Format(CMF) for installation on VIRGINIA Class submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6					P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog					Modification Number / Title: 8 / ML018 VA CLASS ES MODERNIZATION SEI/CMF			
Models of Systems Affected: VA CI				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION SEI/CMF</i>													
B Kits													
Recurring													
1.1.1) VA SEI/CMF - NonOrganic	6 / 3.559	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.559	
<i>Subtotal: Recurring</i>	- / 3.559	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.559	
<i>Subtotal: ML018 VA CLASS ES MODERNIZATION SEI/CMF</i>	6 / 3.559	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.559	
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.559	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.559	
Installation													
<i>Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION SEI/CMF</i>													
<i>Subtotal: Installation</i>	- / 0.789	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.789	
Total	4.348	-	-	-	-	-	-	-	-	-	-	4.348	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 8 / ML018 VA CLASS ES MODERNIZATION SEI/CMF

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION SEI/CMF

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: VA SEI/CMF

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	6 / 0.789	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	6 / 0.789
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	6 / 0.789	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.789

Installation Schedule

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog				Modification Number / Title: 9 / ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.332	-	-	-	-	-	-	-	-	-	-	6.332
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.332	-	-	-	-	-	-	-	-	-	-	6.332
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.332	-	-	-	-	-	-	-	-	-	-	6.332
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides updates to the AN/BLQ-10(V) configuration baseline which incorporates current Commercial off the Shelf (COTS) processing technology and software for obsolescence avoidance, and improved Reliability, Maintainability and Availability (RMA).

Capability and Technical Insertions for AN/BLQ-10(V) provide spiral improvements to the baseline system which are designed to counter against new and evolving threat emitters. This effort specifically provides for AN/BLQ-10(V) upgrades and technical H/W and S/W changes that will provide commonality in processors, receivers, interoperability improvements and functional software upgrades to meet current and future tactical requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 9 / ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION

Models of Systems Affected: VA TI-10	Modification Type: SHIPALT	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION												
B Kits												
Recurring												
1.1.1) VA TI-10 - NonOrganic	7 / 4.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.803
<i>Subtotal: Recurring</i>	- / 4.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.803
<i>Subtotal: ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION</i>	7 / 4.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.803
<i>Subtotal: Procurement, All Modification Items</i>	- / 4.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.803
Installation												
<i>Modification Item 1 of 1:</i> ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION	- / 1.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.529
<i>Subtotal: Installation</i>	- / 1.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.529
Total												
Total Cost (Procurement + Support + Installation)	6.332	-	-	-	-	-	-	-	-	-	-	6.332

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 9 / ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION

Modification Item 1 of 1: ML018 VA CLASS ES MODERNIZATION TECHNICAL INSERTION

Manufacturer Information

Manufacturer Name: Lockheed Martin	Manufacturer Location: Syracuse, NY
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 16

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: VA TI-10

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 1.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	7 / 1.529
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 1.529	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 1.529

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Out	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 10 / ML020 AN/BLQ-10B (V)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	10.477	34.279	-	-	-	-	-	-	-	-	44.756
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	10.477	34.279	-	-	-	-	-	-	-	-	44.756
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	10.477	34.279	-	-	-	-	-	-	-	-	44.756

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement of AN/BLQ-10B(V) NRE and modernization kits for ES Modernization upgrades for all submarine platforms. The rapid proliferation of complex radar, communications and navigation equipment available to potential adversaries creates a need for sustained and significant improvements to submarine systems in order to maintain tactical ship safety and operational effectiveness. Commander Submarine Forces and the Submarine Tactical Requirements Group (STRG) raised EW primary mission area in FY12 to be the number one modernization requirement.

NRE increase in FY16 due to efforts related to creation of SHIPALT packages for VIRGINIA, LOS ANGELES and SEA WOLF class submarines for TI-16 AN/BLQ-10B and EW Tactical Improvement Set (ETIS) modernization and new construction installations, continued integration of software products with target hardware for current and future Advanced Processor Builds (APBs), as well as procurement of logistics and training products supporting the fielding of AN/BLQ-10B and ETIS systems.

FY16 Procurements reflect ETIS kits to be installed in conjunction with TI-16 modernization. ETIS and BLQ-10 Increment I (New Construction) hardware procured jointly with NAVAIR and the US Army leveraging prior NAVAIR funded development and providing a common hardware set for synergistic software solutions to be developed and shared between all three programs.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6				P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog						Modification Number / Title: 10 / ML020 AN/BLQ-10B (V)			
Models of Systems Affected: AN/BLQ-10				Modification Type: SHIPALT				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> ML020 AN/BLQ-10B (V)													
B Kits													
Recurring													
1.1.1) EW Tactical Improvement Set - NonOrganic ⁽⁶⁾	- / -	- / -	6 / 14.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 14.958	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 14.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.958	
<i>Subtotal: ML020 AN/BLQ-10B (V)</i>	- / -	- / -	6 / 14.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 14.958	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 14.958	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.958	
Support (All Modification Items)													
2.1) NRE	- / -	- / 10.477	- / 19.321	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 29.798	
<i>Subtotal: Support</i>	- / 0.000	- / 10.477	- / 19.321	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 29.798	
Installation													
<i>Modification Item 1 of 1:</i> ML020 AN/BLQ-10B (V)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	10.477	34.279	-	-	-	-	-	-	-	-	44.756	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 6	P-1 Line Item Number / Title: 2560 / Submarine Supt Equip Prog	Modification Number / Title: 10 / ML020 AN/BLQ-10B (V)

Modification Item 1 of 1: ML020 AN/BLQ-10B (V)

Manufacturer Information

Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016					
Delivery Dates		Mar 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: EW Tactical Improvement Set

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation Schedule

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

Footnotes:

(5) FY16 Procurements provide initial hardware in support of digital EW system transformation mandated by OPNAV. ETIS introduces limited digital capability to AN/BLQ-10A. ETIS kits will be provided in conjunction with SWFTS modernizations.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0607658N, 0603658N	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	756.725	33.939	25.695	22.034	-	22.034	34.401	32.066	32.047	31.863	66.525	1,035.295
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	756.725	33.939	25.695	22.034	-	22.034	34.401	32.066	32.047	31.863	66.525	1,035.295
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	756.725	33.939	25.695	22.034	-	22.034	34.401	32.066	32.047	31.863	66.525	1,035.295

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	2.423	1.413	1.078	-	1.078	0.693	0.852	1.031	1.000	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$5.167 million to account for the availability of prior years execution balance.

Cooperative Engagement Capability (CEC) significantly improves Battle Force Anti-Air Warfare (AAW) capability by coordinating all Battle Force AAW sensors into a single, real-time, composite track picture capable of fire control quality. CEC distributes sensor data from each ship and aircraft, or cooperating unit (CU), to all other CUs in the battle force through a real-time, line of sight, high data rate sensor and engagement data distribution network. CEC is highly resistant to jamming and provides accurate gridlocking between CUs. Each CU independently employs high capacity, parallel processing and advanced algorithms to combine all distributed sensor data into a fire control quality track picture which is the same for all CUs. CEC data is presented as a superset of the best AAW sensor capabilities from each CU, all of which are integrated into a single input to each CU's combat weapons system. CEC significantly improves our Battle Force defense in depth, including both local area and ship defense capabilities against current and future AAW threats. Moreover, CEC provides critical connectivity and integration of over-land air defense systems capable of countering emerging air threats, including land attack cruise missiles, in a complex littoral environment.

CEC consists of the Data Distribution System (DDS), the Cooperative Engagement Processor (CEP), and Combat System modifications. The DDS encodes and distributes ownship sensor and engagement data and is a high capacity, jam resistant, directive system providing a precision gridlocking and high throughput of data. The CEP is a high capacity distributed processor that is able to process force levels of data in near real-time. This data is passed to the ship's combat system as high quality data for which the ship can cue its onboard sensors or use the data to engage targets without actually tracking them. The Navy has begun implementation of a Pre-Planned Product Improvement (P3I) approach to modify the current equipment to meet reduced size, weight, cost, power and cooling objectives. This P3I approach also supports continuity for interoperability improvements and program protection, as well as supporting open architecture initiatives and comms independence. P3I will provide hardware which complies with Category 3 Open Architecture Core Environment (OACE) standards with rehosted existing software, which will be fielded fleet-wide to allow affordable replacement of obsolete computing system components and eliminate dependencies on "closed" equipment, operating systems, and middleware.

A family of antennas approach will be used to satisfy CEC requirements with lower life cycle costs (procurement, installation, and maintenance) and reduced weight (on mast and below deck). These antennas enable future capability as well as providing a solution extensible to additional platforms. A competitive contract for Common Array Block (CAB) antenna development and production was awarded late FY13. CEC is planned for shipboard installations at various Naval and commercial shipyards aboard CG/CG Mod, DDG/DDG Mod, CV/CVN, LPD, LHD, DDG 1000, and LHA ship classes during scheduled ship availability periods and at land based test sites (LBTS).

[P40A / UC002 - AN/UYQ-70 DISPLAY]: This is a sunk cost to fund the procurement of the AN/UYQ-70 display system for use and integration with the CEC system.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0607658N, 0603658N	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A / UC004 - ECP/KIT PROCUREMENT]: These funds are for the procurement and installation of Engineering Change Proposals (ECPs) and Field Change Kits to address CEC parts obsolescence associated with interfacing systems on multiple platforms.</p> <p>[P40A / UC005 - NON-RECURRING DEPOT COST]: This is a sunk cost to establish a depot for the CEC system.</p> <p>[P40A / UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING]: This is a sunk cost to fund VISTA training related to the CEC system.</p> <p>[P40A / UC008 - SUPPLY SUPPORT]: This is a sunk cost for Supply Support for the CEC system.</p> <p>[P40A / UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)]: Funds are for the procurement of Signal Data Processors (SDP) backfits at Land Based Test Sites (LBTSs). There are no installation costs associated with these procurements because the installations will be performed by employees at the LBTSs.</p> <p>[P40A / UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for the CEC AN/USG-2 system configuration.</p> <p>[P40A / UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for the AN/USG-2A CEC system configuration.</p> <p>[P40A / UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)]: Funds are for the procurement of AN/USG-2B hardware conversion kits for CEC Land Based Test Sites.</p> <p>[P40A / UC830 - PRODUCTION ENGR. SUPPORT]: These funds are for production engineering support for CEC systems.</p> <p>[P40A / UCCA1 - CONGRESSIONAL ADD]: These are Congressional add funds.</p> <p>[P3A / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)]: These funds are for the procurement of CEC to backfit CG, DDG, CV/CVN, and LHD ship classes, as well as various Land Based Test Sites (LBTSs).</p> <p>[P3A - 2 / UC003 - PAAA BACKFIT KITS]: These funds are for the procurement of Planar Antenna Array Assembly (PAAA) backfit kits.</p> <p>[P3A - 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)]: Funds are for the procurement of Signal Data Processors (SDP) backfits.</p> <p>[P3A - 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)]: Funds are for the procurement of Signal Data Processors (SDP) backfits for AN/USG-2A equipment.</p> <p>[P3A - 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD]: Funds are for the procurement of Common Array Block (CAB) antennas for shipboard AN/USG-2B systems.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment

P-1 Line Item Number / Title:
2606 / Cooperative Engagement Capability

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0607658N, 0603658N **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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	COOPERATIVE ENGAGEMENT CAPABILITY	P-5a		- / 256.693	- / 11.753	- / 6.574	- / 9.386	- / -	- / 9.386
P-3a	1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B) (SGAAW)			- / 437.450	- / 0.132	- / 6.507	- / 0.132	- / -	- / 0.132
P-3a	2 / UC003 - PAAA BACKFIT KITS (SGAAW)			- / 40.742	- / 10.009	- / 4.723	- / 1.749	- / -	- / 1.749
P-3a	3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) (SGAAW)			- / 13.504	- / 5.721	- / 5.031	- / 2.846	- / -	- / 2.846
P-3a	4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) (SGAAW)			- / 8.336	- / 2.924	- / 2.277	- / 1.481	- / -	- / 1.481
P-3a	5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD (SGAAW)			- / 0.000	- / 3.400	- / 0.583	- / 6.440	- / -	- / 6.440
P-40	Total Gross/Weapon System Cost			- / 756.725	- / 33.939	- / 25.695	- / 22.034	- / -	- / 22.034

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	COOPERATIVE ENGAGEMENT CAPABILITY	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B) (SGAAW)			- / 11.999	- / 5.524	- / 3.026	- / 1.447	- / -	- / 466.217
P-3a	2 / UC003 - PAAA BACKFIT KITS (SGAAW)			- / 2.332	- / -	- / -	- / -	- / -	- / 59.555
P-3a	3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2) (SGAAW)			- / 3.897	- / 3.172	- / 2.459	- / 1.964	- / 1.473	- / 40.067
P-3a	4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) (SGAAW)			- / 0.746	- / 0.852	- / 0.432	- / -	- / -	- / 17.048
P-3a	5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD (SGAAW)			- / 5.123	- / 11.967	- / 15.530	- / 20.985	- / 65.052	- / 129.080
P-40	Total Gross/Weapon System Cost			- / 34.401	- / 32.066	- / 32.047	- / 31.863	- / 66.525	- / 1,035.295

*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:

Funds are to procure hardware and provide associated support for the CEC system. Requirements are driven by planned procurements of CEC for LHD 2-6, Planar Antenna Array Assembly (PAAA) antennas, and Signal Data Processor (SDP) backfit kits.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																	Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability						Aggregated Items Title: COOPERATIVE ENGAGEMENT CAPABILITY								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) UC002 - AN/UYQ-70 DISPLAY																				
1.1) AN/UYQ-70 DISPLAY	A		-	-	21.493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) UC002 - AN/UYQ-70 DISPLAY			-	-	21.493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2) UC004 - ECP/KIT PROCUREMENT																				
2.1) ECP/KIT PROCUREMENT	A		-	-	93.828	-	-	4.016	-	-	2.785	-	-	2.964	-	-	-	-	-	2.964
Subtotal: 2) UC004 - ECP/KIT PROCUREMENT			-	-	93.828	-	-	4.016	-	-	2.785	-	-	2.964	-	-	-	-	-	2.964
3) UC005 - NON-RECURRING DEPOT COST																				
3.1) NON-RECURRING DEPOT SUPPORT	A		-	-	4.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) UC005 - NON-RECURRING DEPOT COST			-	-	4.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4) UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING																				
4.1) VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING	A		-	-	0.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) UC006 - VISUAL INTERACTIVE SIMULATED TRAINING APPLICATION (VISTA) TRAINING			-	-	0.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5) UC008 - SUPPLY SUPPORT																				
5.1) SUPPLY SUPPORT	A		-	-	6.094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 5) UC008 - SUPPLY SUPPORT			-	-	6.094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)																				
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS) ⁽¹⁾	A		439,909.09	11	4.839	218,500.00	2	0.437	-	-	-	227,154.00	4	0.909	-	-	-	227,154.00	4	0.909
Subtotal: 6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)			-	-	4.839	-	-	0.437	-	-	-	-	-	0.909	-	-	-	-	-	0.909
7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)																				
7.1) AN/USG-2B HARDWARE	A		361,750.00	8	2.894	369,000.00	8	2.952	376,500.00	2	0.753	383,833.33	1	0.384	-	-	-	383,833.33	1	0.384

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy															Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability									Aggregated Items Title: COOPERATIVE ENGAGEMENT CAPABILITY				

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
CONVERSION KITS (AN/USG-2) ^(†)																				
Subtotal: 7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)			-	-	2.894	-	-	2.952	-	-	0.753	-	-	0.384	-	-	-	-	-	0.384
8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)																				
8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A) ^(†)	A		276,000.00	7	1.932	281,666.67	3	0.845	287,000.00	1	0.287	293,000.00	2	0.586	-	-	-	293,000.00	2	0.586
Subtotal: 8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)			-	-	1.932	-	-	0.845	-	-	0.287	-	-	0.586	-	-	-	-	-	0.586
9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)																				
9.1) AN/USG-2B HARDWARE CONVERSION KITS (LBTS) ^(†)	A		364,333.33	3	1.093	371,500.00	2	0.743	-	-	-	386,509.00	4	1.546	-	-	-	386,509.00	4	1.546
Subtotal: 9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)			-	-	1.093	-	-	0.743	-	-	-	-	-	1.546	-	-	-	-	-	1.546
10) UC830 - PRODUCTION ENGR. SUPPORT																				
10.1) PRODUCTION ENGR. SUPPORT	A		-	-	81.781	-	-	2.760	-	-	2.749	-	-	2.997	-	-	-	-	-	2.997
Subtotal: 10) UC830 - PRODUCTION ENGR. SUPPORT			-	-	81.781	-	-	2.760	-	-	2.749	-	-	2.997	-	-	-	-	-	2.997
11) UC61 - CONGRESSIONAL ADD																				
11.1) CONGRESSIONAL ADD	A		-	-	23.249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 11) UC61 - CONGRESSIONAL ADD			-	-	23.249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12) UC6IN - NON-FMP INSTALLATION																				
12.1) NON-FMP INSTALLATION	A		-	-	14.290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 12) UC6IN - NON-FMP INSTALLATION			-	-	14.290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	256.693	-	-	11.753	-	-	6.574	-	-	9.386	-	-	-	-	-	9.386

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.
 (†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7			P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability					Aggregated Items: COOPERATIVE ENGAGEMENT CAPABILITY				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
6) UC011 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)												
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)		2011	Sechan Electronics, Inc. / Lititz, PA	C / IDIQ	Washington, DC	Dec 2011	Jun 2013	5	450,000.00	Y		Dec 2010
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)		2012	Sechan Electronics, Inc. / Lititz, PA	SS / IDIQ	Washington, DC	Dec 2012	Jun 2014	3	669,000.00	Y		
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)		2014	Sechan Electronics, Inc. / Lititz, PA	SS / IDIQ	Washington, DC	May 2014	Nov 2015	3	194,094.00	Y		
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)		2015	Sechan Electronics, Inc. / Lititz, PA	SS / IDIQ	Washington, DC	May 2015	Nov 2016	2	218,500.00	Y		
6.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (LBTS)		2017 ⁽¹⁾	Sechan Electronics, Inc. / Lititz, PA	SS / IDIQ	Washington, DC	Mar 2017	Sep 2018	4	227,154.00	Y		
7) UC013 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)												
7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)		2014 ⁽²⁾	Raytheon / St. Petersburg, FL	SS / FFP	Washington, DC	Apr 2014	Jun 2015	8	361,750.00	Y		
7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)		2015 ⁽³⁾	DRS Technologies / Johnstown, PA	C / FFP	Washington, DC	Aug 2015	Oct 2016	8	369,000.00	Y		
7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)		2016 ⁽⁴⁾	DRS Technologies / Johnstown, PA	SS / FFP	Washington, DC	Apr 2016	Jun 2017	2	376,500.00	Y		
7.1) AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2)		2017 ⁽⁵⁾	DRS Technologies / Johnstown, PA	SS / FFP	Washington, DC	Apr 2017	Jun 2018	1	383,833.33	Y		
8) UC014 - AN/USG-2B HARDWARE CONVERSION KITS (AN/USG-2A)												
8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A)		2014 ⁽⁶⁾	Raytheon / St. Petersburg, FL	SS / FFP	Washington, DC	Apr 2014	Jun 2015	7	276,060.00	Y		
8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A)		2015 ⁽⁷⁾	DRS Technologies / Johnstown, PA	C / FFP	Washington, DC	Aug 2015	Oct 2016	3	281,666.67	Y		
8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A)		2016 ⁽⁸⁾	DRS Technologies / Johnstown, PA	SS / FFP	Washington, DC	Apr 2016	Jun 2017	1	287,000.00	Y		
8.1) AN/USG-2B HARDWARE CONVERSION KIT (AN/USG-2A)		2017 ⁽⁹⁾	DRS Technologies / Johnstown, PA	SS / FFP	Washington, DC	Apr 2017	Jun 2018	2	293,000.00	Y		
9) UC015 - AN/USG-2B HARDWARE CONVERSION KITS (LBTS)												
9.1) AN/USG-2B HARDWARE CONVERSION KITS (LBTS)		2014 ⁽¹⁰⁾	Raytheon / St. Petersburg, FL	SS / FFP	Washington, DC	Apr 2014	Jun 2015	3	364,410.00	Y		
9.1) AN/USG-2B HARDWARE CONVERSION KITS (LBTS)		2015 ⁽¹¹⁾	DRS Technologies / Johnstown, PA	C / FFP	Washington, DC DCWashington, DC	Aug 2015	Oct 2016	2	371,500.00	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7			P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability					Aggregated Items: COOPERATIVE ENGAGEMENT CAPABILITY				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
9.1) AN/USG-2B HARDWARE CONVERSION KITS (LBTS)		2017 ⁽¹²⁾	DRS Technologies / Johnstown, PA	SS / FFP	Washington, DC	Apr 2017	Jun 2018	4	386,509.00	Y		

Footnotes:

- (1) Planning to add two additional option years to the contract for FY17 and FY18.
- (2) The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.
- (3) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (4) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (5) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (6) The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.
- (7) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (8) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (9) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (10) The last option year under the current CEC Production contract was FY14. Two additional option years have been added to the contract for FY15 and FY16.
- (11) Procurement of this equipment transitioned to a new Production contract starting in FY15.
- (12) Procurement of this equipment transitioned to a new Production contract starting in FY15.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability				Modification Number / Title: 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	437.450	0.132	6.507	0.132	-	0.132	11.999	5.524	3.026	1.447	-	466.217
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	437.450	0.132	6.507	0.132	-	0.132	11.999	5.524	3.026	1.447	-	466.217
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	437.450	0.132	6.507	0.132	-	0.132	11.999	5.524	3.026	1.447	-	466.217
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Strike Group Anti-Air Warfare (AAW) Improvement

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)

Models of Systems Affected: UC001 COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (CETPS) (AN/USG-2/2A/2B)	Modification Type: SGAAW	Related RDT&E PEs: 0603755N, 0603658N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)												
B Kits												
Recurring												
1.1.1) COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B) - NonOrganic	48 / 364.527	- / -	1 / 5.060	- / -	- / -	- / -	2 / 10.552	1 / 5.392	- / -	- / -	- / -	52 / 385.531
<i>Subtotal: Recurring</i>	- / 364.527	- / -	- / 5.060	- / -	- / -	- / -	- / 10.552	- / 5.392	- / -	- / -	- / -	- / 385.531
<i>Subtotal: UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)</i>	48 / 364.527	- / -	1 / 5.060	- / -	- / -	- / -	2 / 10.552	1 / 5.392	- / -	- / -	- / -	52 / 385.531
<i>Subtotal: Procurement, All Modification Items</i>	- / 364.527	- / -	- / 5.060	- / -	- / -	- / -	- / 10.552	- / 5.392	- / -	- / -	- / -	- / 385.531

Installation

Modification Item 1 of 1: UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)	- / 72.923	- / 0.132	- / 1.447	- / 0.132	- / -	- / 0.132	- / 1.447	- / 0.132	- / 3.026	- / 1.447	- / -	- / 80.686
<i>Subtotal: Installation</i>	- / 72.923	- / 0.132	- / 1.447	- / 0.132	- / -	- / 0.132	- / 1.447	- / 0.132	- / 3.026	- / 1.447	- / -	- / 80.686

Total

Total Cost (Procurement + Support + Installation)	437.450	0.132	6.507	0.132	-	0.132	11.999	5.524	3.026	1.447	-	466.217
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)

Modification Item 1 of 1: UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)

Manufacturer Information

Manufacturer Name: RAYTHEON ⁽¹³⁾				Manufacturer Location: ST. PETERSBURG, FL			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016					
Delivery Dates		Sep 2017					

Manufacturer Name: DRS Technologies ⁽¹⁴⁾				Manufacturer Location: Johnstown, PA			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017	Mar 2018	Mar 2019		
Delivery Dates			Sep 2018	Sep 2019	Sep 2020		

Installation Information

Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSI

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	47 / 72.923	- / 0.132	1 / 1.447	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	48 / 74.502
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / 0.132	- / -	- / 0.132	1 / 1.447	- / -	- / -	- / -	- / -	1 / 1.579
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.132	2 / 2.894	- / -	- / -	2 / 3.026
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.132	1 / 1.447	- / -	1 / 1.579
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	47 / 72.923	- / 0.132	1 / 1.447	- / 0.132	- / -	- / 0.132	1 / 1.447	- / 0.132	2 / 3.026	1 / 1.447	- / -	52 / 80.686

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 1 / UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)

Modification Item 1 of 1: UC001 - COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSING SET (USG-2/2A/2B)

Installation Information

Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: COOPERATIVE ENGAGEMENT TRANSMISSION PROCESSI

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	47	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	52
Out	47	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	52

Footnotes:
⁽¹³⁾ The last option year under the current CEC Production contract was FY 2014. Two additional option years have been added to the contract for FY15 and FY16.
⁽¹⁴⁾ Procurement of CEC systems will transition to a new Production contract starting in FY17.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 2 / UC003 - PAAA BACKFIT KITS
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	40.742	10.009	4.723	1.749	-	1.749	2.332	-	-	-	-	59.555
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	40.742	10.009	4.723	1.749	-	1.749	2.332	-	-	-	-	59.555
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	40.742	10.009	4.723	1.749	-	1.749	2.332	-	-	-	-	59.555

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Strike Group Anti-Air Warfare (AAW) Improvement. The PAAA Backfit Kit procurements will be replaced with Common Array Block (CAB) - Shipboard Antenna procurements commencing in FY16.

[PAAA BACKFIT KITS] The 2 PAAA antennas being procured in FY15 and 1 PAAA being procured in FY16 will replace 3 older SBAA antennas currently in the Fleet. These SBAA's are very expensive to maintain and some of the parts are becoming obsolete.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7 **P-1 Line Item Number / Title:** 2606 / Cooperative Engagement Capability **Modification Number / Title:** 2 / UC003 - PAAA BACKFIT KITS

Models of Systems Affected: UC003 PAAA BACKFIT KITS **Modification Type:** SGAAW **Related RDT&E PEs:** 0603755N, 0603658N

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> UC003 - PAAA BACKFIT KITS												
B Kits												
Non-Recurring												
1.1.1) PAAA BACKFIT KITS - NonOrganic	9 / 31.601	2 / 6.200	1 / 3.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 40.991
<i>Subtotal: Non-Recurring</i>	- / 31.601	- / 6.200	- / 3.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 40.991
<i>Subtotal: UC003 - PAAA BACKFIT KITS</i>	9 / 31.601	2 / 6.200	1 / 3.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 40.991
<i>Subtotal: Procurement, All Modification Items</i>	- / 31.601	- / 6.200	- / 3.190	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 40.991
Installation												
<i>Modification Item 1 of 1:</i> UC003 - PAAA BACKFIT KITS	- / 9.141	- / 3.809	- / 1.533	- / 1.749	- / -	- / 1.749	- / 2.332	- / -	- / -	- / -	- / -	- / 18.564
<i>Subtotal: Installation</i>	- / 9.141	- / 3.809	- / 1.533	- / 1.749	- / -	- / 1.749	- / 2.332	- / -	- / -	- / -	- / -	- / 18.564
Total												
Total Cost (Procurement + Support + Installation)	40.742	10.009	4.723	1.749	-	1.749	2.332	-	-	-	-	59.555

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 2 / UC003 - PAAA BACKFIT KITS

Modification Item 1 of 1: UC003 - PAAA BACKFIT KITS

Manufacturer Information							
Manufacturer Name: RAYTHEON ⁽¹⁵⁾				Manufacturer Location: ST. PETERSBURG, FL			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Sep 2015	Apr 2016					
Delivery Dates	Mar 2017	Oct 2017					

Installation Information
Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: PAAA BACKFIT KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 9.141	3 / 3.809	1 / 1.241	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 14.191
FY 2015	- / -	- / -	- / 0.292	1 / 1.166	- / -	1 / 1.166	1 / 1.166	- / -	- / -	- / -	- / -	2 / 2.624
FY 2016	- / -	- / -	- / -	- / 0.583	- / -	- / 0.583	1 / 1.166	- / -	- / -	- / -	- / -	1 / 1.749
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 9.141	3 / 3.809	1 / 1.533	1 / 1.749	- / -	1 / 1.749	2 / 2.332	- / -	- / -	- / -	- / -	12 / 18.564

Installation Schedule																																
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	5	1	-	2	-	-	-	-	1	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	5	1	-	2	-	-	-	-	1	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12

Footnotes:
⁽¹⁵⁾ PAAA Backfit Kits are partial systems. The last option year under the current CEC Production contract FY 2014. Two additional option years have been added to the contract for FY15 and FY16.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability				Modification Number / Title: 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	13.504	5.721	5.031	2.846	-	2.846	3.897	3.172	2.459	1.964	1.473	40.067
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	13.504	5.721	5.031	2.846	-	2.846	3.897	3.172	2.459	1.964	1.473	40.067
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	13.504	5.721	5.031	2.846	-	2.846	3.897	3.172	2.459	1.964	1.473	40.067
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Signal Data Processors (SDP) backfits.

[SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2)] Prior Year and FY12 includes funding to procure AN/USG-2B hardware conversion kits. A new cost code (UC013) was created and the funding for the hardware conversion kits has been realigned to this cost code for FY13-18.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)

Models of Systems Affected: UC009 SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2)	Modification Type: SGAAW	Related RDT&E PEs: 0603755N, 0603658N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)												
B Kits												
Recurring												
1.1.1 SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2) - NonOrganic	19 / 10.146	8 / 1.748	2 / 0.445	1 / 0.227	- / -	1 / 0.227	3 / 0.695	4 / 0.945	3 / 0.723	- / -	- / -	40 / 14.929
<i>Subtotal: Recurring</i>	- / 10.146	- / 1.748	- / 0.445	- / 0.227	- / -	- / 0.227	- / 0.695	- / 0.945	- / 0.723	- / -	- / -	- / 14.929
<i>Subtotal: UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)</i>	19 / 10.146	8 / 1.748	2 / 0.445	1 / 0.227	- / -	1 / 0.227	3 / 0.695	4 / 0.945	3 / 0.723	- / -	- / -	40 / 14.929
<i>Subtotal: Procurement, All Modification Items</i>	- / 10.146	- / 1.748	- / 0.445	- / 0.227	- / -	- / 0.227	- / 0.695	- / 0.945	- / 0.723	- / -	- / -	- / 14.929

Installation

Modification Item 1 of 1: UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)	- / 3.358	- / 3.973	- / 4.586	- / 2.619	- / -	- / 2.619	- / 3.202	- / 2.227	- / 1.736	- / 1.964	- / 1.473	- / 25.138
<i>Subtotal: Installation</i>	- / 3.358	- / 3.973	- / 4.586	- / 2.619	- / -	- / 2.619	- / 3.202	- / 2.227	- / 1.736	- / 1.964	- / 1.473	- / 25.138

Total

Total Cost (Procurement + Support + Installation)	13.504	5.721	5.031	2.846	-	2.846	3.897	3.172	2.459	1.964	1.473	40.067
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UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 3 / UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)

Modification Item 1 of 1: UC009 - SIGNAL DATA PROCESSOR (SDP) BACKFITS (AN/USG-2)

Manufacturer Information

Manufacturer Name: Sechan Electronics, Inc. ⁽¹⁶⁾	Manufacturer Location: Lititz, PA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	May 2015	Mar 2016	Mar 2017	Mar 2018			
Delivery Dates	Nov 2016	Sep 2017	Sep 2018	Sep 2019			

Installation Information

Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 3.358	4 / 3.973	8 / 3.928	3 / 1.338	- / 0.000	3 / 1.338	- / -	- / -	- / -	- / -	- / 0.000	19 / 12.597
FY 2015	- / -	- / -	- / 0.658	1 / 1.281	- / -	1 / 1.281	6 / 2.676	1 / 0.491	- / -	- / -	- / -	8 / 5.106
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.526	2 / 0.982	- / -	- / -	- / -	2 / 1.508
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.491	- / -	- / -	- / -	1 / 0.491
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.263	3 / 1.473	- / -	- / -	3 / 1.736
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.263	4 / 1.964	- / -	4 / 2.227
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.473	3 / 1.473
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 3.358	4 / 3.973	8 / 4.586	4 / 2.619	- / -	4 / 2.619	6 / 3.202	4 / 2.227	3 / 1.736	4 / 1.964	3 / 1.473	40 / 25.138

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	4	-	1	1	2	3	3	1	1	1	1	2	-	2	2	1	1	-	-	2	2	-	1	1	1	-	1	1	2	3	40
Out	4	-	1	1	2	3	3	1	1	1	1	2	-	2	2	1	1	-	-	2	2	-	1	1	1	-	1	1	2	3	40

Footnotes:
⁽¹⁶⁾ The last option year under the current SDP-S Production contract was FY15. One option year has been added to the contract for FY16. Planning to add two additional option years to the contract for FY17 and FY18. The FY17 installation funding reflected is a combination of the cost for the actual FY17 installation (\$.491M) and DSA costs for the 6 installations in FY18 (\$.790M).

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability				Modification Number / Title: 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	8.336	2.924	2.277	1.481	-	1.481	0.746	0.852	0.432	-	-	17.048
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	8.336	2.924	2.277	1.481	-	1.481	0.746	0.852	0.432	-	-	17.048
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	8.336	2.924	2.277	1.481	-	1.481	0.746	0.852	0.432	-	-	17.048

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Signal Data Processors (SDP) backfits for AN/USG-2A equipment.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)

Models of Systems Affected: UC010 SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)	Modification Type: SGAAW	Related RDT&E PEs: 0603755N, 0603658N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)												
B Kits												
Recurring												
1.1.1) SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A) - NonOrganic	17 / 6.654	3 / 0.656	1 / 0.223	2 / 0.454	- / -	2 / 0.454	1 / 0.232	2 / 0.473	- / -	- / -	- / -	26 / 8.692
<i>Subtotal: Recurring</i>	- / 6.654	- / 0.656	- / 0.223	- / 0.454	- / -	- / 0.454	- / 0.232	- / 0.473	- / -	- / -	- / -	- / 8.692
<i>Subtotal: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)</i>	17 / 6.654	3 / 0.656	1 / 0.223	2 / 0.454	- / -	2 / 0.454	1 / 0.232	2 / 0.473	- / -	- / -	- / -	26 / 8.692
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.654	- / 0.656	- / 0.223	- / 0.454	- / -	- / 0.454	- / 0.232	- / 0.473	- / -	- / -	- / -	- / 8.692

Installation

Modification Item 1 of 1: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)	- / 1.682	- / 2.268	- / 2.054	- / 1.027	- / -	- / 1.027	- / 0.514	- / 0.379	- / 0.432	- / -	- / -	- / 8.356
<i>Subtotal: Installation</i>	- / 1.682	- / 2.268	- / 2.054	- / 1.027	- / -	- / 1.027	- / 0.514	- / 0.379	- / 0.432	- / -	- / -	- / 8.356

Total

Total Cost (Procurement + Support + Installation)	8.336	2.924	2.277	1.481	-	1.481	0.746	0.852	0.432	-	-	17.048
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 4 / UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)

Modification Item 1 of 1: UC010 - SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/USG-2A)

Manufacturer Information

Manufacturer Name: Sechan Electronics, Inc. ⁽¹⁷⁾	Manufacturer Location: Lititz, PA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	May 2015	Mar 2016	Mar 2017	Mar 2018			
Delivery Dates	Nov 2016	Sep 2017	Sep 2018	Sep 2019			

Installation Information

Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: SIGNAL DATA PROCESSORS (SDP) BACKFITS (AN/US

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 1.682	8 / 2.268	8 / 1.728	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	17 / 5.678
FY 2015	- / -	- / -	- / 0.326	3 / 0.648	- / -	3 / 0.648	- / -	- / -	- / -	- / -	- / -	3 / 0.974
FY 2016	- / -	- / -	- / -	1 / 0.216	- / -	1 / 0.216	- / -	- / -	- / -	- / -	- / -	1 / 0.216
FY 2017	- / -	- / -	- / -	- / 0.163	- / -	- / 0.163	2 / 0.432	- / -	- / -	- / -	- / -	2 / 0.595
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.082	1 / 0.216	- / -	- / -	- / -	1 / 0.298
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.163	2 / 0.432	- / -	- / -	2 / 0.595
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 1.682	8 / 2.268	8 / 2.054	4 / 1.027	- / -	4 / 1.027	2 / 0.514	1 / 0.379	2 / 0.432	- / -	- / -	26 / 8.356

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	1	1	2	1	4	1	2	2	3	-	-	2	2	-	-	1	1	-	-	1	-	-	-	-	1	1	-	-	-	-	-	-	26
Out	1	1	2	1	4	1	2	2	3	-	-	2	2	-	-	1	1	-	-	1	-	-	-	-	1	1	-	-	-	-	-	-	26

Footnotes:
⁽¹⁷⁾ The last option year under the current SDP-S Production contract was FY15. One option year has been added to the contract for FY16. Planning to add two additional option years to the contract for FY17 and FY18.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability				Modification Number / Title: 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	3.400	0.583	6.440	-	6.440	5.123	11.967	15.530	20.985	65.052	129.080
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	3.400	0.583	6.440	-	6.440	5.123	11.967	15.530	20.985	65.052	129.080
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	3.400	0.583	6.440	-	6.440	5.123	11.967	15.530	20.985	65.052	129.080
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Strike Group Anti-Air Warfare (AAW) Improvement. Funds are for the procurement of Common Array Block (CAB) antennas for shipboard AN/USG-2B systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD

Models of Systems Affected: UC012 COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD	Modification Type: SGAAW	Related RDT&E PEs: 0603755N, 0603658N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD												
B Kits												
Recurring												
1.1.1) COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD - NonOrganic ⁽¹⁸⁾	- / -	2 / 3.400	- / -	2 / 4.408	- / -	2 / 4.408	2 / 4.540	4 / 9.352	5 / 12.040	6 / 14.880	16 / 27.786	37 / 76.406
<i>Subtotal: Recurring</i>	- / 0.000	- / 3.400	- / -	- / 4.408	- / -	- / 4.408	- / 4.540	- / 9.352	- / 12.040	- / 14.880	- / 27.786	- / 76.406
<i>Subtotal: UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD</i>	- / -	2 / 3.400	- / -	2 / 4.408	- / -	2 / 4.408	2 / 4.540	4 / 9.352	5 / 12.040	6 / 14.880	16 / 27.786	37 / 76.406
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 3.400	- / -	- / 4.408	- / -	- / 4.408	- / 4.540	- / 9.352	- / 12.040	- / 14.880	- / 27.786	- / 76.406
Installation												
<i>Modification Item 1 of 1:</i> UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD	- / 0.000	- / -	- / 0.583	- / 2.032	- / -	- / 2.032	- / 0.583	- / 2.615	- / 3.490	- / 6.105	- / 37.266	- / 52.674
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.583	- / 2.032	- / -	- / 2.032	- / 0.583	- / 2.615	- / 3.490	- / 6.105	- / 37.266	- / 52.674
Total												
Total Cost (Procurement + Support + Installation)	0.000	3.400	0.583	6.440	-	6.440	5.123	11.967	15.530	20.985	65.052	129.080

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2606 / Cooperative Engagement Capability	Modification Number / Title: 5 / UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD

Modification Item 1 of 1: UC012 - COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD

Manufacturer Information

Manufacturer Name: RAYTHEON	Manufacturer Location: ST. PETERSBURG, FL
Administrative Leadtime (in Months): 18	Production Leadtime (in Months): 18

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Aug 2015		Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates	Feb 2017		Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022

Installation Information

Method of Implementation: ALTERATION INSTALLATION TEAM (AIT):: Installation Name: COMMON ARRAY BLOCK (CAB) ANTENNA - SHIPBOARD

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / 0.583	2 / 2.032	- / -	2 / 2.032	- / -	- / -	- / -	- / -	- / -	2 / 2.615
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.583	2 / 2.032	- / -	- / -	- / -	2 / 2.615
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.583	2 / 2.032	- / -	- / -	2 / 2.615
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.458	4 / 4.064	- / -	4 / 5.522
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.041	5 / 5.806	5 / 7.847
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 10.194	6 / 10.194
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 21.266	16 / 21.266
Total	- / -	- / -	- / 0.583	2 / 2.032	- / -	2 / 2.032	- / 0.583	2 / 2.615	2 / 3.490	4 / 6.105	27 / 37.266	37 / 52.674

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	2	-	-	-	2	2	27	37
Out	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	2	-	-	-	2	2	27	37

Footnotes:
⁽¹⁸⁾ The unit price of the CAB increased by approximately \$400K from the PB-16 budget starting in FY17. This increase is driven by the requirement to procure 1 new Environmental Control System Controller (ECSC) for each CAB that is procured.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2608 / Trusted Information System (TIS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0304231N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	11.171	0.324	0.284	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.171	0.324	0.284	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.171	0.324	0.284	-	-	-	-	-	-	-	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	0.008	0.004	-	0.004	0.007	0.008	0.007	0.007	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Trusted Information System (TIS) Radiant Mercury (RM) system provides the core on-line, automated guarding, sanitization, and transliteration services that provides the United State Navy (USN)'s primary command and control systems with the capability to move data between multiple security domains. RM is a critical component in a wide variety of Navy architectures to include Consolidated Afloat Network Enterprise Services (CANES) and the Maritime Operations Centers (MOC). RM supports numerous programs to include the Navy's Automated Identification System (AIS), Global Command Control Systems-Maritime (GCCS-M), Distributed Common Ground System-Navy (DCGS-N), and Navy Tactical Ranges, Naval Modular Automated Communications System (NAVMACS), and Mobile User Objective System (MUOS). RM architecture provides the capability to move data between security domains in order to maintain Maritime Domain Awareness (MDA) and effectively share information. As the Department of Defense (DoD) Executive Agent for RM the USN also maintains the RM development team, Independent Validation and Verification (IV&V) team, and test facilities for both the DoD and the Intelligence Community. RM is deployed at over 380 sites worldwide with approximately 600 fielded systems. Funds continuous hardware tech refresh at the prime developer and at certification test locations.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2608 / Trusted Information System (TIS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0304231N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Trusted Information System (TIS)	P-5a, P-21		- / 11.171	- / 0.324	- / 0.284	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 11.171	- / 0.324	- / 0.284	- / -	- / -	- / -

*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:
 Funding in FY17 and out was realigned to OMN AGSAG 1C1C.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7 **P-1 Line Item Number / Title:** 2608 / Trusted Information System (TIS) **Aggregated Items Title:** Trusted Information System (TIS)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) TIS Procurements (JG030)																				
1.1) TIS Procurements ^(†)	A		253.333	39	9.880	104.500	2	0.209	101.500	2	0.203	-	-	-	-	-	-	-	-	-
Subtotal: 1) TIS Procurements (JG030)			-	-	9.880	-	-	0.209	-	-	0.203	-	-	-	-	-	-	-	-	-
2) TIS Installations (JG776)																				
2.1) TIS Installations	A		-	-	1.291	-	-	0.115	-	-	0.081	-	-	-	-	-	-	-	-	-
Subtotal: 2) TIS Installations (JG776)			-	-	1.291	-	-	0.115	-	-	0.081	-	-	-	-	-	-	-	-	-
Total			-	-	11.171	-	-	0.324	-	-	0.284	-	-	-	-	-	-	-	-	-

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

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2608 / Trusted Information System (TIS)	Aggregated Items: Trusted Information System (TIS)
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) TIS Procurements (JG030)												
1.1) TIS Procurements ^(†)		2015	Lockheed Martin / Denver, CO	WR	NSMA, San Diego, CA	Jan 2015	Mar 2015	2	104.500	Y		
1.1) TIS Procurements ^(†)		2016	Lockheed Martin / Denver, CO	WR	NSMA, San Diego, CA	Jan 2016	Mar 2016	2	101.500	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2608 / Trusted Information System (TIS)	Aggregated Items: Trusted Information System (TIS)
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	Lockheed Martin - Denver, CO	1	2	3	-	1	6	7	-	3	2	5

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	598.104	8.066	14.416	12.336	-	12.336	10.519	9.764	17.563	17.934	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	598.104	8.066	14.416	12.336	-	12.336	10.519	9.764	17.563	17.934	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	598.104	8.066	14.416	12.336	-	12.336	10.519	9.764	17.563	17.934	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.462	0.219	0.122	-	0.122	0.285	0.303	0.309	0.192	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in NTCSS by \$0.52M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Naval Tactical Command Support System (NTCSS) is a multi-function program designed to provide standard tactical support information systems to various afloat and associated shore-based fleet activities. The mission is to provide the full range of responsive tactical support Automated Data Processing (ADP) hardware and software in support of the management of information, personnel, material and funds required to maintain and operate ships, submarines, and aircraft. NTCSS is to provide an efficient management of afloat tactical support data, through the use of standardized hardware and software, to meet the mission support information management requirements for force sustainment.

NTCSS incorporates the functionality of the Shipboard Non-Tactical ADP Program (SNAP) systems, the Naval Aviation Logistics Command Management Information System (NALCOMIS), and the Maintenance Resource Management System (MRMS).

SNAP is an automated information system that supports organizational level maintenance, supply, financial and administrative functions on afloat units, at Marine Aviation Logistics Squadrons (MALs) and at associated shore activities. SNAP improves equipment supportability and maintainability and thus readiness through: improvement in the accuracy of maintenance, supply, financial and related support data maintained and reported by the ship; and acceleration of management report preparation and data transmission. The scope of SNAP includes approximately 300 sites.

NALCOMIS is an automated, real time, interactive, management information system that provides a modern management tool for day-to-day management of aircraft maintenance at the organizational and intermediate levels. NALCOMIS automates management of the aviation repairables inventory, providing nose-to-tail tracking through the repair and operations cycles. The scope of NALCOMIS includes 66 aviation intermediate maintenance activities located afloat (CV/LHA/LHD/MALS), at Naval Air Stations (NAS), and approximately 326 Navy and Marine Squadrons.

MRMS is an automated information system that supports ship intermediate maintenance management of the Atlantic and Pacific Fleets. MRMS supports Type Commands, Group Commanders, Area Coordinators, Readiness Support Groups, Submarine Squadrons, Ship Repair Facilities, and various Intermediate Maintenance Activities, both afloat and ashore, for budgeting, planning, production and analysis of ship maintenance. MRMS improves ship readiness through improved maintenance and ship repair management, information resource management, and maintenance data processing. The scope of MRMS includes approximately 16 shipboard and 65 shore based intermediate and maintenance and planning activities.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)
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	
<p>DY005, Ship Set Equipment Upgrades procures afloat ruggedized, commercial-off-the-shelf (COTS) computing equipment, which includes servers to support the NTCSS application and database, personal computers (PCs) that will interface with the servers for maintenance and supply transactions, and printers to display output. COTS software, which includes the operating system, comes loaded on the servers and PCs.</p> <p>DY006, MALS/Shore Equipment Upgrades procures ashore ruggedized, COTS computing equipment, which includes servers to support the NTCSS application and database, PCs that will interface with the servers for maintenance and supply transactions, and printers to display output. COTS software, which includes the operating system, comes loaded on the servers and PCs.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005) (TBD)			- / 299.017	- / 4.576	- / 2.426	- / 2.197	- / -	- / 2.197
P-3a	2 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) (TBD)			- / 299.087	- / 3.490	- / 11.990	- / 10.139	- / -	- / 10.139
P-40	Total Gross/Weapon System Cost			- / 598.104	- / 8.066	- / 14.416	- / 12.336	- / -	- / 12.336

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005) (TBD)			- / 3.896	- / 4.246	- / 4.104	- / 3.000	Continuing	Continuing
P-3a	2 / 2611 Naval Tactical Command Support System MALS/Shore Equipment Upgrades (DY006) (TBD)			- / 6.623	- / 5.518	- / 13.459	- / 14.934	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 10.519	- / 9.764	- / 17.563	- / 17.934	Continuing	Continuing

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

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

Justification:
 Funding for FY17 procures: 1) NTCSS system upgrades for ships; 2) NTCSS system upgrades for Naval Air Stations (NAS), Squadrons, Shore Support Facilities, Fleet Training Centers, Marine Aviation Logistics Squadrons (MALS), Navy Expeditionary Combat Command sites, Special Warfare units, and Commander Naval Surface Forces; and 3) necessary production engineering and installation support.

NTCSS-Optimized software will continue to be fielded at program-of-record (POR) afloat and ashore sites. Ship set and MALS/Shore equipment upgrades continue; hardware and software upgrades required for obsolescence avoidance.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)				Modification Number / Title: 1 / 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	299.017	4.576	2.426	2.197	-	2.197	3.896	4.246	4.104	3.000	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	299.017	4.576	2.426	2.197	-	2.197	3.896	4.246	4.104	3.000	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	299.017	4.576	2.426	2.197	-	2.197	3.896	4.246	4.104	3.000	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Application subsystems include financial/inventory management, organizational and surface maintenance management, and administrative information systems support. NTCSS procurements will also provide ship capabilities for displaying and storing Computer-aided Acquisition and Logistics Support (CALS) initiative information (digitized engineering drawings, automated technical manuals, etc.).

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)	Modification Number / Title: 1 / 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)

Models of Systems Affected: Provides ADP system upgrades and NTCSS-Optimized software to Battle Group and unit level ships.	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)												
B Kits												
Recurring												
1.1.1) Equipment - NonOrganic ⁽¹⁾	648 / 151.897	29 / 2.471	20 / 1.462	23 / 1.118	- / -	23 / 1.118	32 / 2.353	31 / 2.412	35 / 2.414	23 / 1.872	Continuing	Continuing
<i>Subtotal: Recurring</i>	- / 151.897	- / 2.471	- / 1.462	- / 1.118	- / -	- / 1.118	- / 2.353	- / 2.412	- / 2.414	- / 1.872	Continuing	Continuing
<i>Subtotal: 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)</i>	648 / 151.897	29 / 2.471	20 / 1.462	23 / 1.118	- / -	23 / 1.118	32 / 2.353	31 / 2.412	35 / 2.414	23 / 1.872	Continuing	Continuing
<i>Subtotal: Procurement, All Modification Items</i>	- / 151.897	- / 2.471	- / 1.462	- / 1.118	- / -	- / 1.118	- / 2.353	- / 2.412	- / 2.414	- / 1.872	Continuing	Continuing
Support (All Modification Items)												
2.1) Production Support	- / 13.518	- / 0.148	- / 0.088	- / 0.067	- / -	- / 0.067	- / 0.141	- / 0.144	- / 0.145	- / 0.113	Continuing	Continuing
2.2) DSA	- / 5.164	- / 0.117	- / 0.053	- / 0.065	- / -	- / 0.065	- / 0.085	- / 0.128	- / 0.103	- / 0.068	- / -	- / 5.783
<i>Subtotal: Support</i>	- / 18.682	- / 0.265	- / 0.141	- / 0.132	- / -	- / 0.132	- / 0.226	- / 0.272	- / 0.248	- / 0.181	Continuing	Continuing
Installation												
<i>Modification Item 1 of 1:</i> 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)	- / 128.438	- / 1.840	- / 0.823	- / 0.947	- / -	- / 0.947	- / 1.317	- / 1.562	- / 1.442	- / 0.947	Continuing	Continuing
<i>Subtotal: Installation</i>	- / 128.438	- / 1.840	- / 0.823	- / 0.947	- / -	- / 0.947	- / 1.317	- / 1.562	- / 1.442	- / 0.947	Continuing	Continuing
Total												
Total Cost (Procurement + Support + Installation)	299.017	4.576	2.426	2.197	-	2.197	3.896	4.246	4.104	3.000	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)	Modification Number / Title: 1 / 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)

Modification Item 1 of 1: 2611 Naval Tactical Command Support System Ship Set Equipment Upgrades (DY005)

Manufacturer Information

Manufacturer Name: Spawar Systems Center Atlantic	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014	Nov 2015	Nov 2016				
Delivery Dates	Jan 2015	Jan 2016	Jan 2017				

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	648 / 128.438	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	648 / 128.438
FY 2015	- / -	29 / 1.840	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 1.840
FY 2016	- / -	- / -	20 / 0.823	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 0.823
FY 2017	- / -	- / -	- / -	23 / 0.947	- / -	23 / 0.947	- / -	- / -	- / -	- / -	- / -	23 / 0.947
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	32 / 1.317	- / -	- / -	- / -	- / -	32 / 1.317
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 1.562	- / -	- / -	- / -	31 / 1.562
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	35 / 1.442	- / -	- / -	35 / 1.442
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.947	- / -	23 / 0.947
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	648 / 128.438	29 / 1.840	20 / 0.823	23 / 0.947	- / -	23 / 0.947	32 / 1.317	31 / 1.562	35 / 1.442	23 / 0.947	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	638	10	9	10	10	-	3	6	9	2	5	5	11	2	17	5	6	4	7	8	8	8	8	9	9	-	7	8	8	Cont.	Cont.
Out	638	10	9	10	10	-	3	6	9	2	5	5	11	2	17	5	6	4	7	8	8	8	8	9	9	-	7	8	8	Cont.	Cont.

Footnotes:

(1) Varying unit costs is due to the composition of ships from year to year, i.e., one year may have larger ships like CVNs while another year may consist mainly of SSNs. Additionally, different ships require different peripherals, which lead to per unit cost differences in that category.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)				Modification Number / Title: 2 / 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	299.087	3.490	11.990	10.139	-	10.139	6.623	5.518	13.459	14.934	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	299.087	3.490	11.990	10.139	-	10.139	6.623	5.518	13.459	14.934	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	299.087	3.490	11.990	10.139	-	10.139	6.623	5.518	13.459	14.934	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Application subsystems include/financial/inventory management, organizational and surface maintenance management, and administrative information systems support. NTCSS procurements will also provide ship/shore capabilities for displaying and storing Computer-aided Acquisition and Logistics Support (CALs) initiative information (digitized engineering drawings, automated technical manuals, etc.).

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)	Modification Number / Title: 2 / 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)

Models of Systems Affected: Provides ADP system upgrades and NTCSS-Optimized software to Battle Group and unit level ships.	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)												
B Kits												
Recurring												
1.1.1) Equipment - NonOrganic ⁽²⁾	1,261 / 187.792	11 / 2.047	69 / 6.557	55 / 5.570	- / -	55 / 5.570	39 / 3.567	29 / 3.024	72 / 7.467	86 / 8.125	Continuing	Continuing
Subtotal: Recurring	- / 187.792	- / 2.047	- / 6.557	- / 5.570	- / -	- / 5.570	- / 3.567	- / 3.024	- / 7.467	- / 8.125	Continuing	Continuing
Subtotal: 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)	1,261 / 187.792	11 / 2.047	69 / 6.557	55 / 5.570	- / -	55 / 5.570	39 / 3.567	29 / 3.024	72 / 7.467	86 / 8.125	Continuing	Continuing
Subtotal: Procurement, All Modification Items	- / 187.792	- / 2.047	- / 6.557	- / 5.570	- / -	- / 5.570	- / 3.567	- / 3.024	- / 7.467	- / 8.125	Continuing	Continuing

Support (All Modification Items)

2.1) Production Support	- / 12.882	- / 0.123	- / 0.393	- / 0.310	- / -	- / 0.310	- / 0.189	- / 0.153	- / 0.418	- / 0.459	Continuing	Continuing
2.2) DSA	- / 2.838	- / 0.015	- / 0.128	- / 0.060	- / -	- / 0.060	- / 0.060	- / 0.045	- / 0.128	- / 0.158	Continuing	Continuing
Subtotal: Support	- / 15.720	- / 0.138	- / 0.521	- / 0.370	- / -	- / 0.370	- / 0.249	- / 0.198	- / 0.546	- / 0.617	Continuing	Continuing

Installation

Modification Item 1 of 1: 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)	- / 95.575	- / 1.305	- / 4.912	- / 4.199	- / -	- / 4.199	- / 2.807	- / 2.296	- / 5.446	- / 6.192	Continuing	Continuing
Subtotal: Installation	- / 95.575	- / 1.305	- / 4.912	- / 4.199	- / -	- / 4.199	- / 2.807	- / 2.296	- / 5.446	- / 6.192	Continuing	Continuing

Total

Total Cost (Procurement + Support + Installation)	299.087	3.490	11.990	10.139	-	10.139	6.623	5.518	13.459	14.934	Continuing	Continuing
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UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2611 / Naval Tact Cmd Supt Sys (NTCSS)	Modification Number / Title: 2 / 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)

Modification Item 1 of 1: 2611 Naval Tactical Command Support System MALs/Shore Equipment Upgrades (DY006)

Manufacturer Information

Manufacturer Name: Spawar Systems Center Atlantic	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014	Nov 2015	Nov 2016				
Delivery Dates	Jan 2015	Jan 2016	Jan 2017				

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1,261 / 95.575	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1,261 / 95.575
FY 2015	- / -	11 / 1.305	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.305
FY 2016	- / -	- / -	69 / 4.912	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	69 / 4.912
FY 2017	- / -	- / -	- / -	55 / 4.199	- / -	55 / 4.199	- / -	- / -	- / -	- / -	- / -	55 / 4.199
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	39 / 2.807	- / -	- / -	- / -	- / -	39 / 2.807
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 2.296	- / -	- / -	- / -	29 / 2.296
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	72 / 5.446	- / -	- / -	72 / 5.446
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	86 / 6.192	- / -	86 / 6.192
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	1,261 / 95.575	11 / 1.305	69 / 4.912	55 / 4.199	- / -	55 / 4.199	39 / 2.807	29 / 2.296	72 / 5.446	86 / 6.192	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1,261	-	3	4	4	-	23	23	23	-	18	18	19	-	13	13	13	-	10	10	9	-	24	24	24	-	29	29	28	Cont.	Cont.
Out	1,261	-	3	4	4	-	23	23	23	-	18	18	19	-	13	13	13	-	10	10	9	-	24	24	24	-	29	29	28	Cont.	Cont.

Footnotes:

(2) Varying unit costs is due to the composition of shore sites from year to year, i.e., one year may have larger sites like MALs while another year may consist mainly of training sites. Additionally, different shore sites may require different peripherals, which lead to per unit cost differences in that category.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205604N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1.821	16.568	23.069	30.105	-	30.105	45.988	44.174	44.618	45.528	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1.821	16.568	23.069	30.105	-	30.105	45.988	44.174	44.618	45.528	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1.821	16.568	23.069	30.105	-	30.105	45.988	44.174	44.618	45.528	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.004	1.225	0.824	-	0.824	1.122	0.962	0.265	-	-	5.402
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Advanced Tactical Data Link Systems (ATDLS) by \$1.3M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Advanced Tactical Data Link Systems (ATDLS) funds the Time Division Multiple Access family of Link 16 terminals including the Multifunctional Information Distribution System - Low Volume Terminal, Joint Tactical Information Distribution System (JTIDS) and the Tactical Digital Information Link - Joint (TADIL-J) message standard databases resident in the Command & Control Processor (C2P)/ Common Data Link Management System (CDLMS). ATDLS funds the Command and Control Processor (C2P) Technology Refresh, Next Generation (NG) C2P (NGC2P) upgrades to meet LHD combat system upgrades, Link-22 capability upgrades, Link 16 terminal upgrades and replacements, Link 16 antenna replacements, Link Monitoring Management Tool, and other ATDLS integration.

Command and Control Processor (C2P) Technology Refresh Full Systems Ship/Shore (DR003): C2P computer processing boards are obsolete and have antiquated software code with no industrial base support. Technology refresh is required for C2P software modernization. Additionally, C2P configuration is not shock qualified. Full Systems upgrades are required to achieve 901D shock certification.

Command and Control Processor (C2P) Amphibious Assault Ship (LHD) Upgrades (DR003): Changes to LHD combat systems starting in FY13 will require NGC2P/CDLMS upgrades in order to maintain critical data link functions including simultaneous processing of Link 11, Link 16 and JRE.

Link 16 Upgrade Kits Ship/Shore (DR012): Link 16 terminals will be upgraded on U.S. Navy surface platforms. Existing Link 16 Joint Tactical Information Distribution System terminals and Multifunctional Information Distribution System on Ship (MOS) terminals will be implemented with Frequency Remapping (FR) and Crypto Modernization (CM) mandated upgrades. The product improvement will bring the Link 16 terminals in compliance with the Department of Defense / Department of Transportation Memorandum of Agreement (31DEC02) and updated National Security Agency approved cryptographic algorithms.

Link 16 MOS Modernization (MOS MOD) Replacement Ship/Shore (DR012): CVN's and critical DDG Ballistic Missile Defense (BMD) mission platforms will have Link 16 terminals replaced with modernized MOS terminals in addition to meeting Frequency Remapping and Crypto Modernization mandated upgrades.

Link 16 Antenna Replacement (DR012): Existing obsolete dedicated Link 16 shipboard antenna will be replaced.

Link Monitoring Management Tool (LMMT) Ship/Shore (DR014): LMMT is required to enable Joint Interface Control Officers (JICOs) to effectively monitor and manage the performance of tactical data link networks. Funds procurement and installation of LMMT hardware on ships and shore sites. The Multifunctional Information Distribution System (MIDS) will also be procured and installed for the CVNs.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0205604N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	

Advanced Tactical Data Link Systems (ATDLS) Training (DR666): Develop initial end-to-end training curriculum and simulators.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment

P-1 Line Item Number / Title:
2614 / Adv Tact Data Link Sys (ATDLS)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0205604N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Adv Tact Data Link Sys (ATDLS)	P-5a		- / 1.821	- / 16.568	- / 17.748	- / 17.100	- / -	- / 17.100
P-3a	1 / Adv Tact Data Link Sys (ATDLS) (TBD)			- / 0.000	- / -	- / 5.321	- / 13.005	- / -	- / 13.005
P-40	Total Gross/Weapon System Cost			- / 1.821	- / 16.568	- / 23.069	- / 30.105	- / -	- / 30.105

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Adv Tact Data Link Sys (ATDLS)	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / Adv Tact Data Link Sys (ATDLS) (TBD)			- / 8.563	- / 2.601	- / 0.543	- / -	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 45.988	- / 44.174	- / 44.618	- / 45.528	Continuing	Continuing

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

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

Justification:

Advanced Tactical Data Link Systems procure command and control equipment for both shipboard and shore units including the Multifunctional Information Distribution System on Ship (MOS) Mod Terminals, Link 16 Network Program Antennas, Command and Control Processor hardware and software, and increase in Link Monitoring Management Tool hardware and software to address Air Defense System Integrator (ADSI) obsolescence issues.

FY2017 increase is due to the procurement of 6 LMMT Ship (CVN) and associated installation cost, as well as the installation cost for the 5 C2P Refresh Ships procured in FY2016.

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Exhibit P-5, Cost Analysis: PB 2017 Navy						Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7			P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)			Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)		
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)			1.821	16.568	17.748	17.100	-	17.100
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			1.821	16.568	17.748	17.100	-	17.100
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			1.821	16.568	17.748	17.100	-	17.100
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway - Adv Tact Data Link Sys (ATDLS) - DR003 C2P Cost																		
Recurring Cost																		
1.1.1) C2P - Technology Refresh Full System Shore ^(†)	-	-	0.000	975.000	5	4.875	994.000	3	2.982	1,014.000	2	2.028	-	-	-	1,014.000	2	2.028
1.1.2) C2P - LHD Upgrade ^(†)	-	-	0.000	975.000	1	0.975	-	-	-	1,014.000	1	1.014	-	-	-	1,014.000	1	1.014
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>5.850</i>	-	-	<i>2.982</i>	-	-	<i>3.042</i>	-	-	-	-	-	<i>3.042</i>
<i>Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR003 C2P Cost</i>	-	-	<i>0.000</i>	-	-	<i>5.850</i>	-	-	<i>2.982</i>	-	-	<i>3.042</i>	-	-	-	-	-	<i>3.042</i>
Flyaway - Adv Tact Data Link Sys (ATDLS) - DR012 LINK 16 Cost																		
Recurring Cost																		
2.1.1) Link 16 - JTIDS CM/FR Ship ^(†)	-	-	0.000	251.000	3	0.753	-	-	-	-	-	-	-	-	-	-	-	-
2.1.2) Link 16 - JTIDS CM/FR Shore ^(†)	-	-	0.000	213.000	5	1.065	-	-	-	-	-	-	-	-	-	-	-	-
2.1.3) Link 16 - MOS CM/FR Ship ^(†)	-	-	0.000	-	-	-	74.000	2	0.148	-	-	-	-	-	-	-	-	-
2.1.4) Link 16 - MOS CM/FR Shore ^(†)	-	-	0.000	-	-	-	74.000	1	0.074	-	-	-	-	-	-	-	-	-
2.1.5) Link 16 - MOD Ship ^(†)	-	-	0.000	-	-	-	-	-	-	823.000	3	2.469	-	-	-	823.000	3	2.469

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
2.1.6) Link 16 - MOS MOD Shore ^(t)	-	-	0.000	-	-	-	805.000	2	1.610	-	-	-	-	-	-	-	-	-
2.1.7) Link 16 - Upgrade Antenna ^(t)	185.000	3	0.555	185.000	2	0.370	-	-	-	185.000	1	0.185	-	-	-	185.000	1	0.185
<i>Subtotal: Recurring Cost</i>	-	-	0.555	-	-	2.188	-	-	1.832	-	-	2.654	-	-	-	-	-	2.654
<i>Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR012 LINK 16 Cost</i>	-	-	0.555	-	-	2.188	-	-	1.832	-	-	2.654	-	-	-	-	-	2.654
Flyaway - Adv Tact Data Link Sys (ATDLS) - DR014 LINK MONITORING MANAGEMENT TOOL (LMMT) Cost																		
<i>Recurring Cost</i>																		
3.1.1) LMMT - Ship (L Class) ^(t)	-	-	0.000	-	-	-	-	-	-	130.000	10	1.300	-	-	-	130.000	10	1.300
3.1.2) LMMT - Shore ^(t)	-	-	0.000	-	-	-	151.000	15	2.265	93.000	20	1.860	-	-	-	93.000	20	1.860
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	2.265	-	-	3.160	-	-	-	-	-	3.160
<i>Subtotal: Flyaway - Adv Tact Data Link Sys (ATDLS) - DR014 LINK MONITORING MANAGEMENT TOOL (LMMT) Cost</i>	-	-	0.000	-	-	-	-	-	2.265	-	-	3.160	-	-	-	-	-	3.160
Flyaway - INSTALLATION - DR776 NON-FMP Cost																		
<i>Recurring Cost</i>																		
4.1.1) C2P - Technology Refresh Full System Shore Install	-	-	0.000	-	-	-	-	-	2.730	-	-	1.638	-	-	-	-	-	1.638
4.1.2) C2P - Technology Refresh Full System Shore Design	-	-	0.000	-	-	0.325	-	-	0.478	-	-	0.307	-	-	-	-	-	0.307
4.1.3) Link 16 - JTIDS CM/FR Shore Install	-	-	0.000	-	-	-	-	-	-	-	-	0.210	-	-	-	-	-	0.210
4.1.4) Link 16 - JTIDS CM/FR Shore Design	-	-	0.000	-	-	0.175	-	-	0.066	-	-	0.022	-	-	-	-	-	0.022
4.1.5) Link 16 - MOS CM/FR Shore Install	-	-	0.000	-	-	-	-	-	-	-	-	0.042	-	-	-	-	-	0.042
4.1.7) Link 16 - MOS MOD Shore Install	-	-	0.000	-	-	-	-	-	-	-	-	0.960	-	-	-	-	-	0.960
4.1.8) Link 16 - MOS MOD Shore Design	-	-	0.000	-	-	-	-	-	0.155	-	-	0.052	-	-	-	-	-	0.052

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / O2 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
4.1.9) LMMT - Shore Install	-	-	0.000	-	-	-	-	-	2.565	-	-	1.500	-	-	-	-	-	1.500
4.1.10) LMMT - Shore Design	-	-	0.000	-	-	0.420	-	-	0.225	-	-	0.120	-	-	-	-	-	0.120
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.920</i>	-	-	<i>6.219</i>	-	-	<i>4.851</i>	-	-	<i>-</i>	-	-	<i>4.851</i>
<i>Subtotal: Flyaway - INSTALLATION - DR776 NON-FMP Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.920</i>	-	-	<i>6.219</i>	-	-	<i>4.851</i>	-	-	<i>-</i>	-	-	<i>4.851</i>

Flyaway - INSTALLATION - DR777 FMP Cost

Recurring Cost

5.1.1) C2P - NGC2P FCK Install	-	-	0.750	-	-	0.255	-	-	-	-	-	-	-	-	-	-	-	-
5.1.2) C2P - NGC2P FCK Design	-	-	0.061	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
5.1.3) C2P - LHD Upgrade Install	-	-	0.000	-	-	-	-	-	0.330	-	-	-	-	-	-	-	-	-
5.1.4) C2P - LHD Upgrade Design	-	-	0.000	-	-	0.478	-	-	0.021	-	-	0.102	-	-	-	-	-	0.102
5.1.7) Link 16 - JTIDS CM/FR Ship Install	-	-	0.000	-	-	-	-	-	-	-	-	0.084	-	-	-	-	-	0.084
5.1.8) Link 16 - JTIDS CM/FR Ship Design	-	-	0.000	-	-	0.175	-	-	0.025	-	-	0.048	-	-	-	-	-	0.048
5.1.9) Link 16 - MOS CM/FR Ship Install	-	-	0.000	-	-	-	-	-	-	-	-	0.084	-	-	-	-	-	0.084
5.1.12) Link 16 - MOS MOD Ship Design	-	-	0.000	-	-	-	-	-	-	-	-	0.237	-	-	-	-	-	0.237
5.1.13) Link 16 - Upgrade Antenna Install	-	-	0.191	-	-	0.390	-	-	0.198	-	-	-	-	-	-	-	-	-
5.1.14) Link 16 - Upgrade Antenna Design	-	-	0.185	-	-	0.185	-	-	0.008	-	-	0.026	-	-	-	-	-	0.026
5.1.15) LMMT - Ship (L Class) Install	-	-	0.000	-	-	-	-	-	-	-	-	0.400	-	-	-	-	-	0.400
5.1.16) LMMT - Ship (L Class) Design	-	-	0.000	-	-	-	-	-	0.060	-	-	0.158	-	-	-	-	-	0.158
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.187</i>	-	-	<i>1.583</i>	-	-	<i>0.642</i>	-	-	<i>1.139</i>	-	-	<i>-</i>	-	-	<i>1.139</i>
<i>Subtotal: Flyaway - INSTALLATION - DR777 FMP Cost</i>	-	-	<i>1.187</i>	-	-	<i>1.583</i>	-	-	<i>0.642</i>	-	-	<i>1.139</i>	-	-	<i>-</i>	-	-	<i>1.139</i>

Support - DR555 PRODUCTION SUPPORT Cost

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)
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ID Code (A=Service Ready, B=Not Service Ready) : **MDAP/MAIS Code:**

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
6.1) C2P - Technology Refresh Full System Shore Production Support	-	-	0.000	-	-	0.224	-	-	0.149	-	-	0.147	-	-	-	-	-	0.147
6.2) C2P - LHD Upgrade Production Support	-	-	0.000	-	-	0.061	-	-	0.035	-	-	0.051	-	-	-	-	-	0.051
6.4) Link 16 - JTIDS CM/FR Ship Production Support	-	-	0.000	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
6.5) Link 16 - JTIDS CM/FR Shore Production Support	-	-	0.000	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
6.6) Link 16 - MOS CM/FR Ship Production Support	-	-	0.000	-	-	-	-	-	0.007	-	-	-	-	-	-	-	-	-
6.7) Link 16 - MOS CM/FR Shore Production Support	-	-	0.000	-	-	-	-	-	0.004	-	-	-	-	-	-	-	-	-
6.8) Link 16 - MOS MOD Ship Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.254	-	-	-	-	-	0.254
6.9) Link 16 - MOS MOD Shore Production Support	-	-	0.000	-	-	-	-	-	0.074	-	-	-	-	-	-	-	-	-
6.10) Link 16 - Upgrade Antenna Production Support	-	-	0.079	-	-	0.072	-	-	-	-	-	0.007	-	-	-	-	-	0.007
6.11) LMMT Ship - (L Class) Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.154	-	-	-	-	-	0.154
6.12) LMMT - Shore Production Support	-	-	0.000	-	-	-	-	-	0.041	-	-	0.042	-	-	-	-	-	0.042
Subtotal: Support - DR555 PRODUCTION SUPPORT Cost	-	-	0.079	-	-	0.557	-	-	0.310	-	-	0.655	-	-	-	-	-	0.655
Support - DR666 ATDLS Training Cost																		
7.1) ATDLS Training ⁽¹⁾	-	-	0.000	-	-	5.470	-	-	3.498	-	-	1.599	-	-	-	-	-	1.599
Subtotal: Support - DR666 ATDLS Training Cost	-	-	0.000	-	-	5.470	-	-	3.498	-	-	1.599	-	-	-	-	-	1.599
Gross/Weapon System Cost	-	-	1.821	-	-	16.568	-	-	17.748	-	-	17.100	-	-	-	-	-	17.100

Remarks:

BLI 2614 procures data link components (e.g. circuit cards, routers, antennas, shock mounts, etc.) to replace obsolete ones. There is integration and testing of these components lasting 6-9 months, which causes procurements to be installed in the following fiscal year.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	

(t) indicates the presence of a P-5a

Footnotes:

(1) ATDLS Training (DR666): Currently, each program of record (Link 16, C2P and LMMT) has its own unique school house training. These training dollars are required to develop an integrated end-to-end operational training product for all tactical data link (TDL) functionality including those TDL functions performed by other Programs of Record (shipboard combat systems and shipboard networking components).

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Item Number / Title [DODIC]: 1 / Adv Tact Data Link Sys (ATDLS)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) C2P - Technology Refresh Full System Shore		2015	SPAWAR Pacific / San Diego	WR	SPAWAR	Jul 2015	Jul 2016	5	975.000	Y		
1.1.1) C2P - Technology Refresh Full System Shore		2016	IDIQ MAC/FFP / San Diego	C / TBD	SPAWAR	Jul 2016	Jul 2017	3	994.000	Y		
1.1.1) C2P - Technology Refresh Full System Shore		2017	IDIQ MAC/FFP / San Diego	C / TBD	SPAWAR	Feb 2017	Feb 2018	2	1,014.000	Y		
1.1.2) C2P - LHD Upgrade		2015	SPAWAR Pacific / San Diego	WR	SPAWAR	Jul 2015	Dec 2015	1	975.000	Y		Jun 2014
1.1.2) C2P - LHD Upgrade		2017	IDIQ/MAC/FFP / San Diego	C / TBD	SPAWAR	Feb 2017	Jul 2017	1	1,014.000	Y		Mar 2016
2.1.1) Link 16 - JTIDS CM/FR Ship		2015	Data Link Solutions / Cedar Rapids, IA	C / CPFF	SPAWAR	Sep 2015	May 2016	3	251.000	Y		
2.1.2) Link 16 - JTIDS CM/FR Shore		2015	Data Link Solutions / Cedar Rapids, IA	C / CPFF	SPAWAR	Sep 2015	Jul 2016	5	213.000	Y		Mar 2015
2.1.3) Link 16 - MOS CM/FR Ship		2016	Data Link Solutions / Cedar Rapids, IA	C / FFP	SPAWAR	Jun 2016	Dec 2016	2	74.000	Y		
2.1.4) Link 16 - MOS CM/FR Shore		2016	Data Link Solutions / Cedar Rapids, IA	C / FFP	SPAWAR	Jun 2016	Dec 2016	1	74.000	Y		
2.1.5) Link 16 - MOS MOD Ship		2017	Data Link Solutions / Cedar Rapids, IA	C / TBD	SPAWAR	Aug 2017	Aug 2018	3	823.000	Y		
2.1.6) Link 16 - MOS MOD Shore		2016	Data Link Solutions / Cedar Rapids, IA	C / TBD	SPAWAR	Aug 2016	Aug 2017	2	805.000	Y		Oct 2012
2.1.7) Link 16 - Upgrade Antenna		2015	Naval Surface Warfare Center Dahlgren / Dahlgren, Va	WR	Dahlgren	May 2015	Feb 2016	2	185.000	Y		Jun 2014
2.1.7) Link 16 - Upgrade Antenna		2017	SPAWAR Pacific / San Diego	TBD	SPAWAR	Jan 2017	Oct 2017	1	185.000	Y		Jun 2014
3.1.1) LMMT - Ship (L Class)		2017	TBD / San Diego	C / TBD	SPAWAR	May 2017	Aug 2017	10	130.000	Y		
3.1.2) LMMT - Shore		2016	TBD / San Diego	C / TBD	SPAWAR	Feb 2016	May 2016	15	151.000	Y		Jun 2015
3.1.2) LMMT - Shore		2017	TBD / San Diego	C / TBD	SPAWAR	May 2017	Aug 2017	20	93.000	Y		Jun 2015

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Modification Number / Title: 1 / Adv Tact Data Link Sys (ATDLS)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	5.321	13.005	-	13.005	8.563	2.601	0.543	-	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	5.321	13.005	-	13.005	8.563	2.601	0.543	-	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	5.321	13.005	-	13.005	8.563	2.601	0.543	-	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Command and Control Processor (C2P) Technology Refresh Full Systems Ship: C2P computer processing boards are obsolete and have antiquated software code with no industrial base support. Technology refresh is required for C2P software modernization. Additionally, C2P configuration is not shock qualified. Full Systems upgrades are required to achieve 901D shock certification.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7					P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)					Modification Number / Title: 1 / Adv Tact Data Link Sys (ATDLS)			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs: 0205604N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Adv Tact Data Link Sys (ATDLS)													
B Kits													
Recurring													
1.1.1) LMMT Ship (CVN) - NonOrganic	- / -	- / -	- / -	6 / 4.818	- / -	6 / 4.818	- / -	1 / 0.811	- / -	- / -	Continuing	Continuing	
1.1.2) C2P - Technology Refresh Ship - NonOrganic	- / -	- / -	5 / 4.970	4 / 4.056	- / -	4 / 4.056	3 / 3.102	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 4.970	- / 8.874	- / -	- / 8.874	- / 3.102	- / 0.811	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Adv Tact Data Link Sys (ATDLS)</i>	- / -	- / -	5 / 4.970	10 / 8.874	- / -	10 / 8.874	3 / 3.102	1 / 0.811	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 4.970	- / 8.874	- / -	- / 8.874	- / 3.102	- / 0.811	- / -	- / -	Continuing	Continuing	
Support (All Modification Items)													
2.1) LMMT Ship (CVN) DSA	- / 0.000	- / -	- / -	- / 0.141	- / -	- / 0.141	- / 0.050	- / 0.030	- / 0.010	- / -	- / -	- / 0.231	
2.2) LMMT Ship (CVN) Production Support	- / 0.000	- / -	- / -	- / 0.376	- / -	- / 0.376	- / 0.020	- / 0.020	- / 0.066	- / -	- / -	- / 0.482	
2.3) C2P - Technology Refresh Ship Production Support	- / 0.000	- / -	- / 0.249	- / 0.236	- / -	- / 0.236	- / 0.155	- / -	- / -	- / -	- / -	- / 0.640	
2.4) C2P - Technology Refresh Ship DSA	- / 0.000	- / -	- / 0.102	- / 0.648	- / -	- / 0.648	- / 0.412	- / 0.102	- / -	- / -	- / -	- / 1.264	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 0.351	- / 1.401	- / -	- / 1.401	- / 0.637	- / 0.152	- / 0.076	- / -	- / -	- / 2.617	
Installation													
<i>Modification Item 1 of 1:</i> Adv Tact Data Link Sys (ATDLS)	- / 0.000	- / -	- / -	- / 2.730	- / -	- / 2.730	- / 4.824	- / 1.638	- / 0.467	- / -	- / -	- / 9.659	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 2.730	- / -	- / 2.730	- / 4.824	- / 1.638	- / 0.467	- / -	- / -	- / 9.659	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	5.321	13.005	-	13.005	8.563	2.601	0.543	-	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Modification Number / Title: 1 / Adv Tact Data Link Sys (ATDLS)

Modification Item 1 of 1: Adv Tact Data Link Sys (ATDLS)

Manufacturer Information

Manufacturer Name: IDIQ MAC/FFP	Manufacturer Location: SPAWAR
Administrative Leadtime (in Months): 9	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jul 2016	Jul 2017				
Delivery Dates		Jul 2017	Jul 2018				

Manufacturer Name: TBD (LMMT)	Manufacturer Location: TBD
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			May 2017				
Delivery Dates			May 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: LMMT Ship (CVN)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.640	- / -	- / -	- / -	- / -	6 / 2.640
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.467	- / -	- / -	1 / 0.467
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.640	- / -	1 / 0.467	- / -	- / -	7 / 3.107

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	2	-	-	-	-	-	-	1	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2614 / Adv Tact Data Link Sys (ATDLS)	Modification Number / Title: 1 / Adv Tact Data Link Sys (ATDLS)

Modification Item 1 of 1: Adv Tact Data Link Sys (ATDLS)

Installation Information

Method of Implementation: [none specified]:: Installation Name: C2P - Technology Refresh Ship

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	5 / 2.730	- / -	5 / 2.730	- / -	- / -	- / -	- / -	- / -	5 / 2.730
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.184	- / -	- / -	- / -	- / -	4 / 2.184
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.638	- / -	- / -	- / -	3 / 1.638
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	5 / 2.730	- / -	5 / 2.730	4 / 2.184	3 / 1.638	- / -	- / -	- / -	12 / 6.552

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
In	-	-	-	-	-	-	-	-	-	-	-	-	1	4	-	-	2	2	-	-	1	2	-	-	-	-	-	-	-	-	-	-	12
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	-	-	2	2	-	-	1	2	-	-	-	-	-	-	-	-	-	12

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	29.973	5.219	4.054	4.556	-	4.556	3.951	3.822	3.932	4.018	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	29.973	5.219	4.054	4.556	-	4.556	3.951	3.822	3.932	4.018	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	29.973	5.219	4.054	4.556	-	4.556	3.951	3.822	3.932	4.018	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.082	0.060	0.029	-	0.029	0.062	0.058	0.027	-	-	0.318
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in NCCS by \$0.13M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Funding includes Global Command and Control System-Maritime (GCCS-M), the Navy fielded portions of GCCS-Joint, and Joint Automated Deep Operations Coordination System (JADOCS). GCCS-M is further delineated by Afloat and Ashore.

GCCS-M is the Maritime implementation of the United States (U.S.) Global Command and Control System (GCCS). It provides Maritime Commanders at all echelons of command with a single, integrated, scalable Command, Control, Communication, Computers and Intelligence (C4I) system that fuses, correlates, filters, maintains and displays location, and attribute information on friendly, hostile and neutral land, sea and air forces. It takes this information and integrates it with available intelligence and environmental information to support commander decision making. It operates in near real-time, constantly updating unit positions and other situational awareness data. GCCS-M also records data in appropriate databases and maintains a history of changes to those records. System operators use the data to construct relevant tactical pictures using maps, charts, topography overlays, oceanographic overlays, meteorological overlays, imagery and all-source intelligence information coordinated into a Common Operational Picture (COP) that can be shared locally and with other sites. GCCS-M is not a weapon system, but receives data from, and interfaces with Navy integrated weapons systems. Navy Commanders review and evaluate the general tactical situation, plan actions and operations, direct forces, synchronize tactical movements, and integrate force maneuver with firepower. GCCS-M operates on General Service (GENSER) Secret networks in a variety of environments and supports joint, coalition and allied forces. GCCS-M is implemented Afloat and at Ashore fixed command centers. Increment 1 includes all GCCS-M software versions 4.0 and earlier. Increment 2 is GCCS-M 4.1.

[P5 / FA010 GCCS-M Afloat]: GCCS-M Afloat provides Command and Control capability to Force Level Ships (e.g., CVN Carriers, LCC Command Ships, LHA and LHD Amphibious Ships), Unit Level Ships (e.g., CG Cruisers, DDG Destroyers, MCM Mine Countermeasure Ships, LPD and LSD Amphibious Ships, FF/LCS Littoral Combat Ships, PC Coastal Patrol Ships), Submarines (e.g., SSN/SSBN/SSGN Submarines), the Software Support Activity (SSA), and the In-Service Engineering Activity (ISEA).

[P5 / FA020 GCCS-M Ashore]: GCCS-M Ashore provides evolutionary systems and ancillary equipment upgrades to support Fleet Commanders, Force Anti-Submarine Warfare Commanders, Submarine Operating Authorities, Aegis Ashore Missile Defense Systems, and Technical Training Equipment Sites worldwide. GCCS-M Ashore provides systems that receive, process, display, maintain and/or assess unit characteristics, employment scheduling, material condition, combat readiness, war fighting capabilities, and positional information of own, allied, and hostile forces. GCCS-M Ashore provides the tools necessary for fleet and Shore based Commanders to execute plans, transmit tasking, and provide tactical information to subordinate forces.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)
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	
<p>[P5 / FA040 GCCS (Joint) Support Equipment]: Global Command and Control System- Joint (GCCS-J) is a Department of Defense (DoD) Program of Record managed by the Defense Information Systems Agency (DISA) GCCS-J Program Management Office (PMO). The GCCS-J system requirements, software release schedule, and system fielding plan are determined by the DISA GCCS-J PMO in coordination with the Joint Staff. GCCS-J supports the Joint Staff and Combatant Commanders by providing Command, Control, Communication, Computers and Intelligence (C4I) data processing capabilities, including status of forces and support requirements for use in national security decision making, force preparation and operational planning and execution. Global Command and Control System- Joint (GCCS-J) provides support for Fleet Communications Center interfacing with deployed units and other fixed Fleet and Joint Command Centers.</p> <p>[P5 / FA060 JADOCS]: Provide funding for the fielding of JADOCS software on new installation hardware. JADOCS is required to provide the capability to coordinate joint targeting and mission assignment for time sensitive targets and other rapid-response missions across Functional Component Commanders, Joint and Combined Force Commanders, Geographic Combatant Commanders, and Special Operations Commanders.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Navy Command and Control System (NCCS)	P-5a		- / 29.973	- / 5.219	- / 4.054	- / 4.556	- / -	- / 4.556
P-40	Total Gross/Weapon System Cost			- / 29.973	- / 5.219	- / 4.054	- / 4.556	- / -	- / 4.556

*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 FY17 budget procures and installs Global Command and Control System- Joint (GCCS-J) Ashore workstations, servers, Local Area Network (LAN) hardware and software, communications equipment; and GCCS-M and JADOCs software. The increase in funding in FY17 supports an increase in GCCS-M procurement and installation quantities resulting from Department of the Navy Chief Information Officer (DON CIO) cybersecurity mandates to address near-term and executable vulnerabilities across Platform Information Technology (PIT) capabilities. To ensure the Navy's end-to-end cybersecurity posture and address the deficiencies and cybersecurity vulnerabilities associated with obsolete operating systems, the Navy has accelerated the process to eradicate the remaining Windows XP (WIN XP) instances in the fleet. This additional funding for GCCS-M in FY17 accelerates fielding of GCCS-M Increment 2 to eradicate GCCS-M WIN XP afloat systems.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)	Item Number / Title [DODIC]: 1 / Navy Command and Control System (NCCS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	29.973	5.219	4.054	4.556	-	4.556
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	29.973	5.219	4.054	4.556	-	4.556
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	29.973	5.219	4.054	4.556	-	4.556

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	0.082	0.060	0.029	-	0.029
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway - FA010 GCCS-M Afloat Cost																		
Recurring Cost																		
1.1.1) GCCS-M Increment 1 Afloat ^(†)	56.977	88	5.014	1.000	1	0.001	1.000	1	0.001	-	-	-	-	-	-	-	-	-
1.1.2) GCCS-M Increment 2 Afloat ^(†) (1)	158.556	18	2.854	5.143	21	0.108	2.645	31	0.082	2.000	75	0.150	-	-	-	2.000	75	0.150
<i>Subtotal: Recurring Cost</i>	-	-	7.868	-	-	0.109	-	-	0.083	-	-	0.150	-	-	-	-	-	0.150
<i>Subtotal: Flyaway - FA010 GCCS-M Afloat Cost</i>	-	-	7.868	-	-	0.109	-	-	0.083	-	-	0.150	-	-	-	-	-	0.150
Flyaway - FA020 GCCS-M Ashore Cost																		
Recurring Cost																		
2.1.1) GCCS-M Increment 2 Ashore ^(†)	1,070.000	2	2.140	-	-	-	-	-	-	12.000	1	0.012	-	-	-	12.000	1	0.012
<i>Subtotal: Recurring Cost</i>	-	-	2.140	-	-	-	-	-	-	-	-	0.012	-	-	-	-	-	0.012
<i>Subtotal: Flyaway - FA020 GCCS-M Ashore Cost</i>	-	-	2.140	-	-	-	-	-	-	-	-	0.012	-	-	-	-	-	0.012
Flyaway - FA040 GCCS (Joint) Support Equipment Cost																		
Recurring Cost																		
3.1.1) GCCS (Joint) Support Equipment ^(†)	149.400	30	4.482	127.167	6	0.763	187.667	3	0.563	100.333	6	0.602	-	-	-	100.333	6	0.602
<i>Subtotal: Recurring Cost</i>	-	-	4.482	-	-	0.763	-	-	0.563	-	-	0.602	-	-	-	-	-	0.602

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7		P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)
		Item Number / Title [DODIC]: 1 / Navy Command and Control System (NCCS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Flyaway - FA040 GCCS (Joint) Support Equipment Cost</i>	-	-	4.482	-	-	0.763	-	-	0.563	-	-	0.602	-	-	-	-	-	0.602
Flyaway - FA060 JADOCS Cost																		
Recurring Cost																		
4.1.1) JADOCS ^(t)	11.250	8	0.090	9.750	12	0.117	13.333	6	0.080	13.000	3	0.039	-	-	-	13.000	3	0.039
<i>Subtotal: Recurring Cost</i>	-	-	0.090	-	-	0.117	-	-	0.080	-	-	0.039	-	-	-	-	-	0.039
<i>Subtotal: Flyaway - FA060 JADOCS Cost</i>	-	-	0.090	-	-	0.117	-	-	0.080	-	-	0.039	-	-	-	-	-	0.039
Flyaway - FA666 Training Curriculum Cost																		
Non Recurring Cost																		
5.1.1) GCCS-M Increment 2 Ashore Training Curriculum	-	-	0.527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - FA666 Training Curriculum Cost</i>	-	-	0.527	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - ASHORE INSTALLATIONS - FA776 Non FMP Cost																		
Recurring Cost																		
6.1.1) GCCS-M Increment 2 Ashore Installation and Pre-Installation Design	-	-	0.881	-	-	-	-	-	-	-	-	0.180	-	-	-	-	-	0.180
6.1.2) GCCS (Joint) Support Equipment	-	-	2.381	-	-	0.450	-	-	0.336	-	-	0.419	-	-	-	-	-	0.419
6.1.3) GCCS-J Pre-Installation Design	-	-	0.549	-	-	0.183	-	-	0.137	-	-	0.175	-	-	-	-	-	0.175
6.1.4) JADOCS	-	-	0.188	-	-	0.109	-	-	0.064	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	3.999	-	-	0.742	-	-	0.537	-	-	0.774	-	-	-	-	-	0.774
<i>Subtotal: Flyaway - ASHORE INSTALLATIONS - FA776 Non FMP Cost</i>	-	-	3.999	-	-	0.742	-	-	0.537	-	-	0.774	-	-	-	-	-	0.774
Flyaway - AFLOAT INSTALLATIONS - FA777 FMP Cost																		
Recurring Cost																		
7.1.1) GCCS-M Increment 1 Afloat	-	-	7.542	-	-	0.094	-	-	0.062	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)	Item Number / Title [DODIC]: 1 / Navy Command and Control System (NCCS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
7.1.2) GCCS-M Increment 2 Afloat ⁽²⁾	-	-	2.984	-	-	3.276	-	-	2.671	-	-	2.934	-	-	-	-	-	2.934
7.1.3) JADOCs	-	-	0.143	-	-	0.083	-	-	0.048	-	-	0.030	-	-	-	-	-	0.030
<i>Subtotal: Recurring Cost</i>	-	-	10.669	-	-	3.453	-	-	2.781	-	-	2.964	-	-	-	-	-	2.964
<i>Subtotal: Flyaway - AFLOAT INSTALLATIONS - FA777 FMP Cost</i>	-	-	10.669	-	-	3.453	-	-	2.781	-	-	2.964	-	-	-	-	-	2.964
Support - FA555 Production Support Cost																		
8.1) GCCS (Joint) Production Engineering Support	-	-	0.126	-	-	0.035	-	-	0.010	-	-	0.015	-	-	-	-	-	0.015
8.2) GCCS-M Increment 2 Ashore Production Support	-	-	0.072	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - FA555 Production Support Cost</i>	-	-	0.198	-	-	0.035	-	-	0.010	-	-	0.015	-	-	-	-	-	0.015
Gross/Weapon System Cost	-	-	29.973	-	-	5.219	-	-	4.054	-	-	4.556	-	-	-	-	-	4.556

Remarks:

- GCCS-M Afloat install quantities also include refresh units.
- For GCCS-M software-only installations, Other Procurement, Navy (OPN) is the appropriate fund source when the GCCS-M installation is an incidental cost to the Common Computing Environment (CCE)/ Consolidated Afloat Networks and Enterprise Services (CANES) hardware installation.
- GCCS-M unit costs are based on the average cost of all the platforms or sites installed within a given fiscal year. Unit cost variances are due to the diverse types of upgrade requirements per platform or site.
- GCCS-M first quarter afloat installations are budgeted for with prior year funds.
- GCCS-M Increment 1 can deliver a software / hardware solution or a software-only solution.
- GCCS-M Increment 2 Afloat is the final version of GCCS-M.
- Global Command and Control System- Joint (GCCS-J) quantities represent the number of complete unit upgrades to existing systems. The cost to upgrade each unit varies based on the number of servers, computers, and monitors and the equipment configurations. The different unit sizes and configurations result in varying unit costs.

(t) indicates the presence of a P-5a

Footnotes:

- (1) FA010 GCCS-M Increment 2 Afloat: The FY17 increase in procurement funding for GCCS-M supports the accelerated fielding of GCCS-M Increment 2 to eradicate GCCS-M Windows XP afloat systems from the fleet. The unit cost is lower in FY17 based on the class of ships that require Increment 2 in FY17.
- (2) FA777 GCCS-M Increment 2 Afloat: The FY17 increase in installation funding for GCCS-M supports the accelerated fielding of GCCS-M Increment 2 to eradicate GCCS-M Windows XP afloat systems from the fleet.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7			P-1 Line Item Number / Title: 2618 / Navy Command and Control System (NCCS)				Item Number / Title [DODIC]: 1 / Navy Command and Control System (NCCS)					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) GCCS-M Increment 1 Afloat		2015	SSC Atlantic/Pacific ⁽³⁾ / SPAWAR	WR	SPAWAR	Nov 2014	Jan 2015	1	1.000	Y		
1.1.1) GCCS-M Increment 1 Afloat		2016	SSC Atlantic/Pacific ⁽³⁾ / SPAWAR	WR	SPAWAR	Nov 2015	Jan 2016	1	1.000	Y		
1.1.2) GCCS-M Increment 2 Afloat		2015	SSC Atlantic/Pacific ⁽⁴⁾ / SPAWAR	WR	SPAWAR	Nov 2014	Jan 2015	21	5.143	Y		
1.1.2) GCCS-M Increment 2 Afloat		2016	SSC Atlantic/Pacific ⁽⁴⁾ / SPAWAR	WR	SPAWAR	Nov 2015	Jan 2016	31	2.645	Y		
1.1.2) GCCS-M Increment 2 Afloat		2017	SSC Atlantic/Pacific ⁽⁴⁾ / SPAWAR	WR	SPAWAR	Nov 2016	Jan 2017	75	2.000	Y		
2.1.1) GCCS-M Increment 2 Ashore		2017	SSC Atlantic/Pacific ⁽⁵⁾ / SPAWAR	WR	SPAWAR	Dec 2016	Mar 2017	1	12.000	Y		
3.1.1) GCCS (Joint) Support Equipment		2015	SSC Atlantic/Pacific / SPAWAR	WR	SPAWAR	Sep 2015	Nov 2015	6	127.167	Y		
3.1.1) GCCS (Joint) Support Equipment		2016	SSC Atlantic/Pacific / SPAWAR	WR	SPAWAR	Jan 2016	Mar 2016	3	187.667	Y		
3.1.1) GCCS (Joint) Support Equipment		2017	SSC Atlantic/Pacific / SPAWAR	WR	SPAWAR	Jan 2017	Mar 2017	6	100.333	Y		
4.1.1) JADOCS		2015	SSC Pacific / San Diego, CA	WR	SPAWAR	Nov 2014	Jan 2015	12	9.750	Y		
4.1.1) JADOCS		2016	SSC Pacific / San Diego, CA	WR	SPAWAR	Nov 2015	Jan 2016	6	13.333	Y		
4.1.1) JADOCS		2017	SSC Pacific / San Diego, CA	WR	SPAWAR	Nov 2016	Jan 2017	3	13.000	Y		

Footnotes:

⁽³⁾ Space and Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), Pacific and Atlantic are procuring, integrating and installation agents. There are multiple hardware and software contracts awarded under each cost code.

⁽⁴⁾ Space and Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), Pacific and Atlantic are procuring, integrating and installation agents. There are multiple software contracts awarded under each cost code.

⁽⁵⁾ Space and Naval Warfare Systems Command Systems Center (SPAWARSYSCEN), Pacific and Atlantic are procuring, integrating and installation agents. There are multiple hardware and software contracts awarded under each cost code.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0603502N	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	561.639	36.259	21.014	56.675	-	56.675	55.423	41.358	41.578	42.404	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	561.639	36.259	21.014	56.675	-	56.675	55.423	41.358	41.578	42.404	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	561.639	36.259	21.014	56.675	-	56.675	55.423	41.358	41.578	42.404	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.403	0.498	0.830	-	0.830	0.821	-	-	-	-	3.552
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provide systems, subsystems, and engineering change kits for minehunting, navigation, and tactical display operations by the surface Mine Countermeasure (MCM) force. Engineering change kits improve reliability and maintainability and correct deficiencies to allow equipment to perform in accordance with operational requirements.

[P5 / HME SHIP SYSTEMS]: A tech refresh is necessary to procure material and install the Integrated Ship Control System (ISCS) upgrades on MCM Class Ships forward deployed. Alteration SCD 78356 will upgrade five computer workstations, replace network switches, and replace the Windows NT operating system with Windows 7. Legacy sustainment will not provide the necessary support because the workstations and network hardware are beyond their intended service lives. In addition, the operating system is not supported by the provider. Parts obsolescence results in procurement delays of urgent warfighting upgrades for deployed ships. Specifically, there is an increased risk of loss of core propulsion, electric and auxiliary plant functionality. ISCS legacy sustainment inhibits MCM capability to get underway to conduct missions in a region of the world that is of vital strategic importance to the United States. Therefore, a tech refresh is necessary to support the MCM mine hunting and minesweeping capability whereas legacy sustainment is not feasible and would result in delays and obsolescence. This alteration has been identified as a priority because this capability is only found on the MCM Class Ships. The MCM Readiness Task Force Report identified implementation of this alteration as the #3 priority and the MCM Operational Advisory Group Brief identified implementation of this alteration as the #7 priority MCM alteration.

[P5 / LV081 - BOW THRUSTER IMPROVEMENT]: This program replaces the hydraulic actuator with an electromagnetic actuator designed to eliminate inherent problems with MCM class ships Bow Thruster.

[P5 / LV082 - AFT DECK EQUIPMENT UPGRADE]: This program will install an inverter electric motor on the magnetic cable reel, acoustic cable reel, minesweeping winch and self contained hydraulic power unit on the stern crane.

[P5 / LV084 - 400HZ]: The 400Hz Motor Generator (MG) onboard the MCMs are mechanically unreliable. Funding will replace the existing 400 Hz MG sets with Static Frequency Converters (SFCs) to eliminate inherent problems with existing systems.

[P5 / LV073 - MCM/MHC INTEGRATED SHIP CONTROL SYSTEM]: This program funds software integration and hardware upgrades to the MCM-1 class ships' Integrated Ship Control System (ISCS). Ship change upgrades computer workstations, replaces network switches, and replaces the operating system.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0603502N	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P5 - 2 / LV075 - MCM COMBAT SYSTEMS]: The MCM Combat System Upgrades program consists of a series of incremental upgrades to the current combat system via Engineering Change Kits. The upgrades improve reliability and maintainability and correct deficiencies to allow the equipment to perform in accordance with operational requirements. The current planned upgrades include:</p> <ul style="list-style-type: none"> - Supportability and Obsolescence Upgrade Engineering Changes - upgrade and modernization of the MCM-1 Class Ship combat systems to reduce current and emergent obsolescence and supportability issues with the SQQ-32, SSN-2, Battle Space Profiler, AAG, SLQ-48 Power Distribution Unit (PDU), and the AN/SLQ-48 Mine Neutralization System. - Mine Neutralization System (MNS) is installing SEAFOX neutralizers on 4 MCM Avenger Class Ships by replacing the existing AN/SLQ-48 Mine Neutralization System. - Klein Sonar - Funds obsolescence upgrades to the Klein sonar. These efforts maintains the ability to rotate systems off of MCM-1's for required overhaul and system upgrades to increase system Operational Availability (Ao). - Mine Environmental Decision Aids Library (MEDAL) Expeditionary Systems - Installation of MEDAL onboard MCM Ships and to ashore MEDAL users. MEDAL EA mobile servers (expeditionary) installation on afloat units including MCM Class and LCS.- SSQ-94 System Trainer - Consists of an improved training systems to MCM Ships' integrating the Sqq-32 HFVB and SSN-2 PINS Upgrades and resolve obsolescence issues. <p>[P5 - 2 / LV078 - AN/SQQ-30(V)4 HFVB]: AN/SQQ-32(V)4 High Frequency Wide Band (HFVB) is a technology upgrade to the SQQ-32 Towed Body which will incorporate HFVB technology into the detection sonar to address performance deficiencies against new mine threats in the littorals. This upgrade will be installed on MCM-1 Class ships with the SQQ-32(V)3 and will have new transducer modules, fiber optic cable and modified topside processing and display software.</p> <p>[P5 - 2 / PNNCM - MINE COUNTERMEASURES MAP SYSTEM]: Additional high-speed, high resolution sidescan sonar systems that provide deeper tows, longer range, and higher resolution than existing systems are required to meet Fleet requirements supporting Mine Warfare (MIW) operations. The procurement will facilitate collection of high resolution imagery at MIW resolutions and acoustic frequencies. The imagery data is required to generate products that directly support mine warfare. This environmental data is critical in the detection of small mine-like targets as well as hazards-to-navigation (e.g. wrecks) and characterizing the seafloor over large areas (geoprovincing). This data is used in change-detection programs to compare with any new data collected from the Fleet that will aid in the assessment and determination of mine-threats and significantly reduced clearance time.</p> <p>[P5 - 3 / LV079 - SMCM UUV W/LFBB (Knifefish)]: The Knifefish Surface Mine Countermeasure Unmanned Undersea Vehicle (SMCM UUV) (LV079) program procures Unmanned Underwater Vehicles (UUVs) to support clandestine mine detection capability against volume and bottom mines including buried mine detection. Equipment includes vehicles and associated systems support equipment.</p> <p>[P5 - 3 / LV080 - UNMANNED INFLUENCE SWEEP SYSTEM (UISS) Trainers]: Unmanned Influence Sweep System (UISS) (LV080): This line item procures the training units to support the UISS operational units procured for the Littoral Combat Ship Mission Modules. UISS consists of a Unmanned Surface Vehicle (USV), power supply, control unit, winch, acoustic generator, magnetic tow cable, and a deploy and retrieve subsystem. UISS will provide long endurance and wide area magnetic and acoustic mine sweep capability onboard the Littoral Combat Ship (LCS) class of ships.</p> <p>[P5 - 4 / LV083 - AIMS]: This program provides both Continental United States (CONUS) and Forward-Area signature measurement capabilities for mine susceptibility assessments, calibrates the ship's degaussing systems, effectiveness of acoustic quiet bills, database archiving and data analysis of Class-wide signatures.</p> <p>[P5 - 4 / LV085 - MAGNETIC SILENCING FACILITY UPGRADES]: This program is for hardware, auxiliary systems and support in association with the upgrade of the current aging Continental United States (CONUS) and Outside Continental United States (OCONUS) Magnetic Silencing Facilities (MSF) so the calibration of the new Open-Loop Magnetic Systems or Advanced Degaussing System (ADS) ships and submarines can be accomplished for worldwide operation. The upgrade will also ensure that the ships/submarines will be able to meet OPNAV 8950.2G signature requirements and will be less susceptible to Electro-Magnetic threat systems.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0603502N	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / HME SHIP SYSTEMS			- / 51.232	- / 8.072	- / 4.283	- / 6.221	- / -	- / 6.221
P-5	2 / MINE COUNTERMEASURES	P-5a, P-21		- / 263.023	- / 12.974	- / 7.864	- / 8.075	- / -	- / 8.075
P-5	3 / UNMANNED SYSTEMS [UNMAN]	P-5a, P-21		- / 0.000	- / -	- / -	- / 24.477	- / -	- / 24.477
P-5	4 / OTHER SYSTEMS [OTHER]			- / 247.384	- / 15.213	- / 8.867	- / 17.902	- / -	- / 17.902
P-40	Total Gross/Weapon System Cost			- / 561.639	- / 36.259	- / 21.014	- / 56.675	- / -	- / 56.675

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

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

Justification:

The FY 2017 funding request was reduced by \$2.5 million as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY 2017 funds the baseline program in order to outfit the current MCM Fleet with Navy's latest technology to combat Mine Warfare Countermeasures around the world. This includes the continued upgrades of SLQ-48 Mine Neutralization systems and the procurement of the SMCM UUV (Knifefish) and Unmanned Influence Sweep System (UISS) trainers in FY 2017. Additionally, to meet the increased operational demand, funding will go towards the installation of the MEDAL EA Mine Warfare Planning upgrades.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 1 / HME SHIP SYSTEMS

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	51.232	8.072	4.283	6.221	-	6.221
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	51.232	8.072	4.283	6.221	-	6.221
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	51.232	8.072	4.283	6.221	-	6.221

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - LV081 - BOW THRUSTER IMPROVEMENT Cost																		
Recurring Cost																		
1.1.1) BOW THRUSTER IMPROVEMENT	-	-	3.958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	3.958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - LV081 - BOW THRUSTER IMPROVEMENT Cost</i>	-	-	3.958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - LV082 - AFT DECK EQUIPMENT UPGRADE Cost																		
Recurring Cost																		
2.1.1) AFT DECK EQUIPMENT UPGRADE ⁽¹⁾	-	-	33.070	-	-	4.483	-	-	2.410	-	-	3.641	-	-	-	-	-	3.641
<i>Subtotal: Recurring Cost</i>	-	-	33.070	-	-	4.483	-	-	2.410	-	-	3.641	-	-	-	-	-	3.641
<i>Subtotal: Hardware - LV082 - AFT DECK EQUIPMENT UPGRADE Cost</i>	-	-	33.070	-	-	4.483	-	-	2.410	-	-	3.641	-	-	-	-	-	3.641
Hardware - LV084 - 400HZ Cost																		
Non Recurring Cost																		
3.1.1) 400HZ	-	-	3.994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	3.994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - LV084 - 400HZ Cost</i>	-	-	3.994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement						Item Number / Title [DODIC]: 1 / HME SHIP SYSTEMS					
ID Code (A=Service Ready, B=Not Service Ready) :									MDAP/MAIS Code:								

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Software - LV073 - MCM/MHC INTEGRATED SHIP CONTROL SYSTEM Cost																		
Recurring Cost																		
4.1.1) SOFTWARE INTEGRATION	-	-	10.210	-	-	3.589	-	-	1.873	-	-	2.580	-	-	-	-	-	2.580
<i>Subtotal: Recurring Cost</i>	-	-	10.210	-	-	3.589	-	-	1.873	-	-	2.580	-	-	-	-	-	2.580
<i>Subtotal: Software - LV073 - MCM/MHC INTEGRATED SHIP CONTROL SYSTEM Cost</i>	-	-	10.210	-	-	3.589	-	-	1.873	-	-	2.580	-	-	-	-	-	2.580
Gross/Weapon System Cost	-	-	51.232	-	-	8.072	-	-	4.283	-	-	6.221	-	-	-	-	-	6.221

Footnotes:

(1) Aft Deck equipment upgrade is a high priority of the MCM Task Force and MCM Operational Advisory Group.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 2 / MINE COUNTERMEASURES
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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)	263.023	12.974	7.864	8.075	-	8.075
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	263.023	12.974	7.864	8.075	-	8.075
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	263.023	12.974	7.864	8.075	-	8.075

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - LV075 - MCM COMBAT SYSTEMS Cost																		
Recurring Cost																		
1.1.1) SSQ-94 Trainer	-	-	0.000	-	-	-	-	-	0.993	-	-	1.928	-	-	-	-	-	1.928
1.1.2) MCM Combat Systems (MEDAL)	-	-	157.299	-	-	1.855	-	-	2.313	-	-	2.358	-	-	-	-	-	2.358
1.1.5) Obsolescence Upgrades (SLQ-48)	-	-	0.000	-	-	-	-	-	2.500	-	-	2.758	-	-	-	-	-	2.758
Subtotal: Recurring Cost	-	-	157.299	-	-	1.855	-	-	5.806	-	-	7.044	-	-	-	-	-	7.044
Subtotal: Hardware - LV075 - MCM COMBAT SYSTEMS Cost	-	-	157.299	-	-	1.855	-	-	5.806	-	-	7.044	-	-	-	-	-	7.044
Hardware - LV900 - MCM COMBAT SYSTEMS Consulting Services Cost																		
Recurring Cost																		
2.1.1) MCM Combat Systems - Consulting Services	-	-	1.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	1.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - LV900 - MCM COMBAT SYSTEMS Consulting Services Cost	-	-	1.732	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - LV078 - AN/SQQ-30(V)4 HFVB Cost																		
Recurring Cost																		
3.1.1) AN/SQQ-32(V)4 HFVB ⁽¹⁾	5,911.750	12	70.941	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement						Item Number / Title [DODIC]: 2 / MINE COUNTERMEASURES					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
3.1.2) AN/SQQ-32(V)4 HFWB Integration ^(†)	3,175.714	7	22.230	3,300.000	3	9.900	-	-	-	-	-	-	-	-	-	-	-	-
3.1.3) HW and S/W ECP	-	-	0.000	-	-	0.284	-	-	1.106	-	-	1.031	-	-	-	-	-	1.031
3.1.4) EDM Refurbishment	-	-	3.848	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	97.019	-	-	10.184	-	-	1.106	-	-	1.031	-	-	-	-	-	1.031
<i>Subtotal: Hardware - LV078 - AN/SQQ-30(V)4 HFWB Cost</i>	-	-	97.019	-	-	10.184	-	-	1.106	-	-	1.031	-	-	-	-	-	1.031
Hardware - PNNCM - MINE COUNTERMEASURES MAP SYSTEM Cost																		
Recurring Cost																		
5.1.1) PNNCM - MINE COUNTERMEASURES MAP SYSTEM (BSO 60) ^(†)	588.000	3	1.764	467.500	2	0.935	476.000	2	0.952	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.764	-	-	0.935	-	-	0.952	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - PNNCM - MINE COUNTERMEASURES MAP SYSTEM Cost</i>	-	-	1.764	-	-	0.935	-	-	0.952	-	-	-	-	-	-	-	-	-
Support - SUPPORT Cost																		
6.1) PRODUCTION ENGINEERING - MCM Combat Systems	-	-	2.461	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2) PRODUCTION ENGINEERING - HFWB	-	-	2.748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - SUPPORT Cost</i>	-	-	5.209	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	263.023	-	-	12.974	-	-	7.864	-	-	8.075	-	-	-	-	-	8.075

^(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 2 / MINE COUNTERMEASURES
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
3.1.1) AN/SQQ-32(V)4 HFWB ^(†)		2013	BAE NASHUA NH / NASHUA NH	C / FFP	NAVSEA	Oct 2013	Dec 2014	3	5,737.000	Y		
3.1.2) AN/SQQ-32(V)4 HFWB Integration ^(†)		2014	Government FMT / NSWC, PC	MIPR	NSWC, PC	Nov 2013	May 2014	3	3,039.667	Y		
3.1.2) AN/SQQ-32(V)4 HFWB Integration ^(†)		2015	Government FMT / NSWC, PC	MIPR	NSWC, PC	Nov 2014	May 2015	3	3,300.000	Y		
5.1.1) PNNCM - MINE COUNTERMEASURES MAP SYSTEM (BSO 60)		2015	Multiple Sources / Various	C / FP	NAVOCEANO, SSC	Mar 2015	Sep 2015	2	467.500	Y		
5.1.1) PNNCM - MINE COUNTERMEASURES MAP SYSTEM (BSO 60)		2016	Multiple Sources / Various	C / FP	NAVOCEANO, SSC	May 2016	Nov 2016	2	476.000	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7 **P-1 Line Item Number / Title:** 2622 / Minesweeping System Replacement **Item Number / Title [DODIC]:** 2 / MINE COUNTERMEASURES

Cost Elements <i>(Units in Each)</i>					Fiscal Year 2014													Fiscal Year 2015													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
3.1.1) AN/SQQ-32(V)4 HFWB																																	
Prior Years Deliveries: 9																																	
1		2013	NAVY	3	-	3	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
3.1.2) AN/SQQ-32(V)4 HFWB Integration																																	
Prior Years Deliveries: 4																																	
2		2014	NAVY	3	-	3		A	-	-	-	-	-	-	1	-	1	-	1														
2		2015	NAVY	3	-	3														A	-	-	-	-	-	-	1	-	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 2 / MINE COUNTERMEASURES
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
3.1.1) AN/SQQ-32(V)4 HFWB																															
Prior Years Deliveries: 9																															
1		2013	NAVY	3	3	-																							-		
3.1.2) AN/SQQ-32(V)4 HFWB Integration																															
Prior Years Deliveries: 4																															
2		2014	NAVY	3	3	-																							-		
2		2015	NAVY	3	3	-																							-		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 2 / MINE COUNTERMEASURES
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	BAE NASHUA NH - NASHUA NH	2	4	8	-	-	21	21	-	-	14	14
2	Government FMT - NSWC, PC	-	-	-	-	-	6	6	-	-	6	6

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7		P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement
		Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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	-	-	24.477	-	24.477
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	-	24.477	-	24.477
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	24.477	-	24.477

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - LV079 - SMCM UUV W/LFBB (Knifefish) Cost																		
Recurring Cost																		
1.1.1) SMCM UUV (Knifefish) ^(†)	-	-	0.000	-	-	-	-	-	-	8,680.000	2	17.360	-	-	-	8,680.000	2	17.360
1.1.2) Ancillary Equipment	-	-	0.000	-	-	-	-	-	-	-	-	2.023	-	-	-	-	-	2.023
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	19.383	-	-	-	-	-	19.383
Non Recurring Cost																		
1.2.1) Production Engineering - Knifefish	-	-	0.000	-	-	-	-	-	-	-	-	1.104	-	-	-	-	-	1.104
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.104	-	-	-	-	-	1.104
<i>Subtotal: Hardware - LV079 - SMCM UUV W/LFBB (Knifefish) Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	20.487	-	-	-	-	-	20.487
Hardware - LV080 - UNMANNED INFLUENCE SWEEP SYSTEM (UISS) Trainers Cost																		
Recurring Cost																		
2.1.1) UISS Trainers	-	-	0.000	-	-	-	-	-	-	1,995.000	2	3.990	-	-	-	1,995.000	2	3.990
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	3.990	-	-	-	-	-	3.990
<i>Subtotal: Hardware - LV080 - UNMANNED INFLUENCE SWEEP SYSTEM (UISS) Trainers Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	3.990	-	-	-	-	-	3.990
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	24.477	-	-	-	-	-	24.477

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
(†) indicates the presence of a P-5a		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) SMCM UUV (Knifefish) ^(†)		2017	General Dynamics MS / Mcleansville, NC	C / FFP	NAVSEA	Mar 2017	Sep 2018	2	8,680.000	N	Mar 2017	

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
1.1.1) SMCM UUV (Knifefish)																															
1		2017	NAVY	2	-	2																							1		

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Exhibit P-21, Production Schedule: PB 2017 Navy																							Date: February 2016										
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7										P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement										Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]													
Cost Elements (Units in Each)							Fiscal Year 2019													Fiscal Year 2020													BALANCE
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019													Calendar Year 2020													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
1.1.1) SMCM UUV (Knifefish)																																	
1	2017	NAVY		2	1	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 3 / UNMANNED SYSTEMS [UNMAN]
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	General Dynamics MS - Mcleansville, NC	2	4	10	3	6	18	24	-	3	15	18

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement	Item Number / Title [DODIC]: 4 / OTHER SYSTEMS [OTHER]

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	247.384	15.213	8.867	17.902	-	17.902
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	247.384	15.213	8.867	17.902	-	17.902
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	247.384	15.213	8.867	17.902	-	17.902

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - LV083 - AIMS Cost																		
Non Recurring Cost																		
1.1.1) AIMS	-	-	9.574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	9.574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - LV083 - AIMS Cost</i>	-	-	9.574	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - LV085 - MAGNETIC SILENCING FACILITY UPGRADES Cost																		
Recurring Cost																		
2.1.1) MSF PEARL HARBOR TREATMENT UPGRADE	11,244.000	1	11.244	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1.2) MSF NORFOLK TREATMENT UPGRADE	-	-	14.457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1.3) MSF MEASUREMENT SYSTEM UPGRADE	57,663.000	1	57.663	-	-	15.213	-	-	8.867	-	-	17.902	-	-	-	-	-	17.902
2.1.4) MAGNETIC SILENCING FACILITY UPGRADES	-	-	5.652	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	89.016	-	-	15.213	-	-	8.867	-	-	17.902	-	-	-	-	-	17.902
<i>Subtotal: Hardware - LV085 - MAGNETIC SILENCING FACILITY UPGRADES Cost</i>	-	-	89.016	-	-	15.213	-	-	8.867	-	-	17.902	-	-	-	-	-	17.902

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2622 / Minesweeping System Replacement						Item Number / Title [DODIC]: 4 / OTHER SYSTEMS [OTHER]					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - LVCA1 - SEA BOTTOM MAPPING Cost																		
Non Recurring Cost																		
3.1.1) SEA BOTTOM MAPPING	-	-	1.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	1.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - LVCA1 - SEA BOTTOM MAPPING Cost</i>	-	-	1.711	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Prior Years Cumulative Funding Cost																		
4.1) Production Engineering	-	-	39.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3) Prior Years Cumulative Funding	-	-	108.053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Prior Years Cumulative Funding Cost</i>	-	-	147.083	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	247.384	-	-	15.213	-	-	8.867	-	-	17.902	-	-	-	-	-	17.902

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	48.473	-	-	8.875	-	8.875	8.770	5.485	5.608	5.721	-	82.932
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	48.473	-	-	8.875	-	8.875	8.770	5.485	5.608	5.721	-	82.932
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	48.473	-	-	8.875	-	8.875	8.770	5.485	5.608	5.721	-	82.932

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	1.925	0.523	-	0.523	0.056	-	-	-	-	2.504
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program provides a combination of US Navy projects planned to counter the threat to amphibious landing forces from known and projected foreign land/sea mines, obstacles in the beach zone and surf zone approaches to amphibious assault areas. It is a system of systems (Countermine/Counter Obstacle, Intelligence/Surveillance/Reconnaissance/Targeting (ISR/T), Navigation/Virtual Marking/Integration, C4I/Data Fusion) to provide a full assault breaching capability. This program is an essential element to the Marine Corps Ship To Objective Maneuver (STOM) Concept of Operations.

[P5 / SW003: LANDING CRAFT UTILITY (LCU) NAVIGATION UPGRADE]: Provides for the modernization of the navigation system to enable safe transit through the breached lane.

[P5 / SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA)]: The mission of the AN/DVS-1 COBRA is to conduct unmanned aerial tactical reconnaissance in the littoral battlespace for detection and localization of minefields and obstacles in the surf zone and beach zone prior to an amphibious assault. The COBRA Airborne Payload will be carried on the MQ-8B Fire Scout Vertical Takeoff and Landing Unmanned Aerial Vehicle (VTUAV). This allows operators and other personnel to remain at a safe distance from the mine and obstacle belts and enemy direct and indirect fire. COBRA will be embarked in the Littoral Combat Ship (LCS) as part of the Mine Countermeasures (MCM) Mission Package (MP).

COBRA provides the Intelligence, Surveillance, Reconnaissance/Targeting (ISR/T) part of the Assault Breaching System (ABS) of systems. One system consists of two Airborne Mine Counter Measures (AMCM) Payloads and one Post Mission Analysis (PMA) Station. Under the umbrella of evolutionary acquisition, three increments of development are planned. Block I introduces a daytime, surface laid minefield and obstacle detection capability for the Beach Zone. Block II adds a surfzone and night (darkness) detection capability. Block III adds a buried mine detection capability and on-board Near-Real-Time processing of Multi Spectral Imagery data. COBRA will be a modular payload architecture of, and integrated with, the MQ-8B Fire Scout VTUAV and will serve as a "detect" sensor within the LCS Mine Warfare mission package as part of amphibious assault breaching.

[P5 / SW005: AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE]: Provides for the modernization of the Landing Craft Units' (LCUs) navigation system to enable precise transit through the breached lane.

[P5 / SW061: LANDING CRAFT AIR CUSHION (LCAC) AUTOPILOT UPGRADE]: Provides an integrated improvement to the LCAC (Service Life Extension Program (SLEP) craft only) navigation system for craft control that allows precise navigation and hovering within the breached lane. (Upgrade software and backfit.)

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment

P-1 Line Item Number / Title:
2624 / Shallow Water Mine CM Ship

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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Shallow Water Mine CM Ship	P-5a, P-21		- / 48.473	- / -	- / -	- / 8.875	- / -	- / 8.875
P-40	Total Gross/Weapon System Cost			- / 48.473	- / -	- / -	- / 8.875	- / -	- / 8.875

*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 \$374 thousand 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 one COBRA system to be integrated on the VTUAV. These systems provide the fleet with the required training assets to certify the pilots and crew to operate and maintain these systems before being deployed on the LCS.

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Exhibit P-5, Cost Analysis: PB 2017 Navy						Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7			P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship			Item Number / Title [DODIC]: 1 / Shallow Water Mine CM Ship		
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)			48.473	-	-	8.875	-	8.875
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			48.473	-	-	8.875	-	8.875
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			48.473	-	-	8.875	-	8.875
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	1.925	0.523	-	0.523
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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - SW003: LANDING CRAFT UTILITY (LCU) NAVIGATION UPGRADE Cost																		
Recurring Cost																		
1.1.1) LCU NAVIGATION UPGRADES	-	-	1.479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - SW003: LANDING CRAFT UTILITY (LCU) NAVIGATION UPGRADE Cost</i>	-	-	1.479	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA) Cost																		
Recurring Cost																		
2.1.1) SW0041 COBRA BLOCK 1 ^(†)	15,826K	1	15.826	-	-	-	-	-	-	8,500K	1	8.500	-	-	-	8,500K	1	8.500
2.1.2) SW00411 COBRA BLOCK 1 SPARES, TRAINING	-	-	2.034	-	-	-	-	-	-	-	-	0.130	-	-	-	-	-	0.130
2.1.3) SW00411 COBRA BLOCK 1 MOD UPGRADES	-	-	19.456	-	-	-	-	-	-	-	-	0.245	-	-	-	-	-	0.245
<i>Subtotal: Recurring Cost</i>	-	-	37.316	-	-	-	-	-	-	-	-	8.875	-	-	-	-	-	8.875
<i>Subtotal: Hardware - SW004: COASTAL BATTLEFIELD RECONNAISSANCE AND ANALYSIS (COBRA) Cost</i>	-	-	37.316	-	-	-	-	-	-	-	-	8.875	-	-	-	-	-	8.875

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship						Item Number / Title [DODIC]: 1 / Shallow Water Mine CM Ship					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - SW005: AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE Cost																		
Recurring Cost																		
3.1.1) AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE	-	-	6.359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	6.359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - SW005: AMPHIBIOUS ASSAULT VEHICLE NAVIGATION UPGRADE Cost</i>	-	-	6.359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - SW061: LANDING CRAFT AIR CUSHION (LCAC) AUTOPILOT UPGRADE Cost																		
Recurring Cost																		
4.1.1) LCAC AUTOPILOT UPGRADES	-	-	2.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	2.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - SW061: LANDING CRAFT AIR CUSHION (LCAC) AUTOPILOT UPGRADE Cost</i>	-	-	2.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - SW830: PRODUCTION ENGINEERING Cost																		
5.1) PRODUCTION ENGINEERING	-	-	1.033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - SW830: PRODUCTION ENGINEERING Cost</i>	-	-	1.033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	48.473	-	-	-	-	-	-	-	-	8.875	-	-	-	-	-	8.875

Remarks:
[Hardware] Acquisition strategy change for Block I and II - ONR sole source.

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship	Item Number / Title [DODIC]: 1 / Shallow Water Mine CM Ship
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.1) SW0041 COBRA BLOCK 1 ^(t)		2014 ⁽¹⁾	ARETE / TUCSON, AZ	C / FFP	NSWC PC	Mar 2015	Sep 2016	1	12,559K	Y		Mar 2013
2.1.1) SW0041 COBRA BLOCK 1 ^(t)		2017	ARETE / TUCSON, AZ	C / FFP	NSWC PC	Mar 2017	Sep 2018	1	8,500K	Y		

^(t) indicates the presence of a P-21

Footnotes:

⁽¹⁾ FY14 procurement requires funds requested via Prior Approval ATR.

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship	Item Number / Title [DODIC]: 1 / Shallow Water Mine CM Ship
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
2.1.1) SW0041 COBRA BLOCK 1																															
	1	2014	NAVY	1	1	-																									
	1	2017	NAVY	1	-	1																									

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2624 / Shallow Water Mine CM Ship	Item Number / Title [DODIC]: 1 / Shallow Water Mine CM Ship
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ARETE - TUCSON, AZ	2	6	12	-	-	18	18	-	-	18	18

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	186.409	15.232	12.359	12.752	-	12.752	15.803	17.577	21.224	21.655	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	186.409	15.232	12.359	12.752	-	12.752	15.803	17.577	21.224	21.655	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	186.409	15.232	12.359	12.752	-	12.752	15.803	17.577	21.224	21.655	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.161	0.263	0.062	-	0.062	0.105	0.078	0.184	0.215	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The increase for GPNTS is to create a single program of record satisfying U.S. Navy surface and subsurface platforms as well as potential U.S. Coast Guard and Foreign Military customers. GPNTS will meet current and emerging Positioning, Navigation and Timing (PNT) requirements of the fleet by providing modernized pervasive, robust, secure, integrated, and interoperable net centric capabilities to surface and subsurface platforms. GPNTS will be designed to accommodate back fit of current legacy PNT systems and forward fit for new platforms. The GPNTS system will be a replacement of the GPS Versa Module Euro card Receiver Card, the AN/WRN-6(V), and the Navigation Sensor System Interface (NAVSSI). The GPNTS system will provide an end to end PNT solution. The system will include the SAASM receiver card as well as an anti-jam GPS antenna. Future capabilities will migrate toward a Common Computing Environment such as Consolidated Afloat Networks Enterprise Services (CANES).

Decrease in NAVSTAR GPS by \$0.61M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

NAVSTAR Global Positioning System (NAVSTAR GPS) provides assured and protected navigation solutions to war fighters through supported, affordable, and integrated systems, and is the primary source of positioning, navigation and timing information for the DoD.

[P5 / (1R009) Navigation Sensor System Interface (NAVSSI) FMP]: NAVSSI procurement and installation is required to provide GPS and other positioning, navigation and timing sensor data to ship-board command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR), combat, and weapons systems. NAVSSI performs the full functions of collection, integration, calculation, and distribution of positioning, navigation and timing data. Precision positioning, navigation, and timing data is required to allow a common and correlated ship-to-ship tactical and operational picture on LHD platforms receiving the CAPSTONE Combat Systems upgrade.

[P5 / (1R011) Navigation Sensor System Interface (NAVSSI) Retrofit]: NAVSSI procurement and installation is required to provide GPS and other positioning, navigation and timing sensor data to ship-board command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR), combat, and weapons systems. NAVSSI performs the full functions of collection, integration, calculation, and distribution of positioning, navigation and timing data. Precision positioning, navigation, and timing data is required to allow a common and correlated ship-to-ship tactical and operational picture.

[P5 / (1R019) Global Positioning System (GPS) - based Positioning, Navigation & Timing Service (GPNTS)]: GPNTS will be a single program of record satisfying U.S. Navy surface and subsurface platforms as well as potential U.S. Coast Guard and Foreign Military customers. GPNTS will meet current and emerging Positioning, Navigation and Timing (PNT) requirements of the fleet by providing modernized pervasive, robust, secure, integrated, and interoperable net centric capabilities to surface and subsurface platforms. GPNTS will be designed to accommodate back fit of current legacy PNT systems and forward fit for new platforms. The GPNTS system will be a replacement of the GPS Versa Module Euro card Receiver Card, the AN/WRN-6(V), and the Navigation Sensor System Interface (NAVSSI). The GPNTS system will

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)
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	
<p>provide an end to end PNT solution. The system will include the SAASM receiver card as well as an anti-jam GPS antenna. Future capabilities will migrate toward a Common Computing Environment such as Consolidated Afloat Networks Enterprise Services (CANES).</p> <p>[P3A / (1R0013) Navigation Warfare (NAVWAR) Installation]: NAVWAR ensures that U. S. military forces maintain access to the GPS in an electronically challenging battle space, delivers the capability to deny adversaries access to and use of GPS during military operations, and serves to preserve the peaceful use of GPS. Navy GPS Enhanced User Equipment (UE) Operational Requirements Document directs that future UE will incorporate an increased anti-jam capability. NAVWAR counters the threat by increasing resistance to intentional or unintentional interference. Sea NAVWAR Strategy comprises of 2 program increments, the first increment (near term) is to install GPS anti-jam antennas system (GAS-1) on surface platforms. The second increment (long term) is to install Advanced Digital Antenna Production (ADAP) antennas on surface platforms. The ADAP antenna improves upon GAS-1 performance by providing simultaneous dual frequency nulling, and built in test ability. The Capabilities Production Document for NAVWAR Increment 2 dated December 2008 was approved to support ADAP antenna development. Procurement and installation of anti-jam GPS antennas and modernized user equipment is required to ensure the continuation of GPS signals from space in a hostile jamming environment. The Sea NAVWAR program will equip selected ships with anti-jam GPS antennas to ensure the continued availability of GPS to support surface combat operations and provide reliable GPS and other positioning, navigation and timing data to ship-board C4ISR, Combat, and Weapons Systems.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment

P-1 Line Item Number / Title:
2657 / NAVSTAR GPS Receivers (Space)

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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / NAVSTAR GPS Receivers (Space)	P-5a		- / 146.251	- / 7.626	- / -	- / 4.284	- / -	- / 4.284
P-3a	1 / (1R0013) Navigation Warfare (NAVWAR) Installation (Upgrade)			- / 40.158	- / 7.606	- / 12.359	- / 8.468	- / -	- / 8.468
P-40	Total Gross/Weapon System Cost			- / 186.409	- / 15.232	- / 12.359	- / 12.752	- / -	- / 12.752

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / NAVSTAR GPS Receivers (Space)	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / (1R0013) Navigation Warfare (NAVWAR) Installation (Upgrade)			- / 7.473	- / 2.647	- / 4.556	- / 4.518	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 15.803	- / 17.577	- / 21.224	- / 21.655	Continuing	Continuing

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

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

Justification:

Navigation Warfare (NAVWAR) - Sea NAVWAR will continue procurement and fielding of ADAP and ADAP FOAL antennae in FY17.

Low Rate Initial Production (LRIP) for GPS-based Positioning Navigation and Timing (PNT) Service (GPNTS) program is scheduled for Q3 FY17 with an initial procurement of six(6) LRIP units.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)	Item Number / Title [DODIC]: 1 / NAVSTAR GPS Receivers (Space)
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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)	146.251	7.626	-	4.284	-	4.284
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	146.251	7.626	-	4.284	-	4.284
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	146.251	7.626	-	4.284	-	4.284

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway - (1R009) Navigation Sensor System Interface (NAVSSI) FMP Cost																		
Recurring Cost																		
1.1.1) Navigation Sensor System Interface (NAVSSI) FMP ^(†)	354.956	136	48.274	1,400.000	1	1.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	48.274	-	-	1.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - (1R009) Navigation Sensor System Interface (NAVSSI) FMP Cost</i>	-	-	48.274	-	-	1.400	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - (1R011) Navigation Sensor System Interface (NAVSSI) Retrofit Cost																		
Recurring Cost																		
2.1.1) Navigation Sensor System Interface (NAVSSI) Retrofit ^(†)	170.128	94	15.992	1,461.500	2	2.923	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	15.992	-	-	2.923	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - (1R011) Navigation Sensor System Interface (NAVSSI) Retrofit Cost</i>	-	-	15.992	-	-	2.923	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - (1R018) Defense Advance GPS Receiver (DAGR) Cost																		
Recurring Cost																		

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7 **P-1 Line Item Number / Title:** 2657 / NAVSTAR GPS Receivers (Space) **Item Number / Title [DODIC]:** 1 / NAVSTAR GPS Receivers (Space)

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

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
3.1.1) Defense Advance GPS Receiver (DAGR)	3.441	1,019	3.506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	3.506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - (1R018) Defense Advance GPS Receiver (DAGR) Cost</i>	-	-	3.506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - (1R019) Global Positioning System (GPS) - based Positioning, Navigation & Timing Service (GPNTS) Cost																		
Recurring Cost																		
4.1.1) GPNTS ^(†)	-	-	0.000	-	-	-	-	-	-	572.000	6	3.432	-	-	-	572.000	6	3.432
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	3.432	-	-	-	-	-	3.432
<i>Subtotal: Flyaway - (1R019) Global Positioning System (GPS) - based Positioning, Navigation & Timing Service (GPNTS) Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	3.432	-	-	-	-	-	3.432
Flyaway - (1R777) FMP Install - NAVSTAR GPS Ship Cost																		
Recurring Cost																		
5.1.1) NAVSSI FMP	-	-	42.173	-	-	0.810	-	-	-	-	-	-	-	-	-	-	-	-
5.1.2) NAVSSI Retrofit	-	-	15.631	-	-	1.948	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	57.804	-	-	2.758	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - (1R777) FMP Install - NAVSTAR GPS Ship Cost</i>	-	-	57.804	-	-	2.758	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - (1R777) FMP DSA - NAVSTAR GPS Ship Cost																		
Recurring Cost																		
6.1.1) NAVSSI FMP	-	-	4.574	-	-	0.079	-	-	-	-	-	-	-	-	-	-	-	-
6.1.2) NAVSSI Retrofit	-	-	3.563	-	-	0.191	-	-	-	-	-	-	-	-	-	-	-	-
6.1.3) GPNTS	-	-	0.000	-	-	-	-	-	-	-	-	0.646	-	-	-	-	-	0.646
<i>Subtotal: Recurring Cost</i>	-	-	8.137	-	-	0.270	-	-	-	-	-	0.646	-	-	-	-	-	0.646
<i>Subtotal: Flyaway - (1R777) FMP DSA - NAVSTAR GPS Ship Cost</i>	-	-	8.137	-	-	0.270	-	-	-	-	-	0.646	-	-	-	-	-	0.646
Support - (1R555) Production Support Cost																		
7.1) NAVSSI FMP Production Support	-	-	8.296	-	-	0.089	-	-	-	-	-	-	-	-	-	-	-	-
7.2) NAVSSI Retrofit Production Support	-	-	4.242	-	-	0.186	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7						P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)						Item Number / Title [DODIC]: 1 / NAVSTAR GPS Receivers (Space)					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
7.3) GPNTS Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.206	-	-	-	-	-	0.206
<i>Subtotal: Support - (1R555) Production Support Cost</i>	-	-	12.538	-	-	0.275	-	-	-	-	-	0.206	-	-	-	-	-	0.206
Gross/Weapon System Cost	-	-	146.251	-	-	7.626	-	-	-	-	-	4.284	-	-	-	-	-	4.284

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)	Item Number / Title [DODIC]: 1 / NAVSTAR GPS Receivers (Space)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Navigation Sensor System Interface (NAVSSI) FMP		2015	L3 KEO / NORTHAMPTON, MA	C / FFP	SPAWAR	Jun 2015	Dec 2015	1	1,400.000	Y		Apr 2015
2.1.1) Navigation Sensor System Interface (NAVSSI) Retrofit		2015	SESCO/MICRO / SAN DIEGO	C / FFP	SPAWAR	Jun 2015	Dec 2015	2	1,461.500	Y		Apr 2015
4.1.1) GPNTS		2017	TBD / TBD	C / FFP	SPAWAR	Jun 2017	Mar 2018	6	572.000	N	Jun 2015	Mar 2016

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7				P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)				Modification Number / Title: 1 / (1R0013) Navigation Warfare (NAVWAR) Installation				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	40.158	7.606	12.359	8.468	-	8.468	7.473	2.647	4.556	4.518	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	40.158	7.606	12.359	8.468	-	8.468	7.473	2.647	4.556	4.518	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	40.158	7.606	12.359	8.468	-	8.468	7.473	2.647	4.556	4.518	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and installation of anti-jam GPS user equipment and prevention equipment is required to ensure the continued utility of GPS signals from space in a hostile jamming environment. The NAVWAR program will equip selected ships with anti-jam GPS antennas to ensure the continued availability of GPS to support surface combat operations and provide reliable GPS and other navigation sensor data to ship-board C4ISR, Combat, and Weapons Systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7					P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)					Modification Number / Title: 1 / (1R0013) Navigation Warfare (NAVWAR) Installation			
Models of Systems Affected: Shore Stations, Ships				Modification Type: Upgrade				Related RDT&E PEs: 0604777N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: (1R0013) Navigation Warfare (NAVWAR) Installation</i>													
B Kits													
Recurring													
1.1.1 NAVWAR (GAS1, ADAP) - NonOrganic ⁽¹⁾	363 / 23.080	19 / 4.530	26 / 9.291	13 / 5.276	- / -	13 / 5.276	14 / 5.361	2 / 0.898	10 / 3.827	8 / 2.927	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 23.080	- / 4.530	- / 9.291	- / 5.276	- / -	- / 5.276	- / 5.361	- / 0.898	- / 3.827	- / 2.927	Continuing	Continuing	
<i>Subtotal: (1R0013) Navigation Warfare (NAVWAR) Installation</i>	363 / 23.080	19 / 4.530	26 / 9.291	13 / 5.276	- / -	13 / 5.276	14 / 5.361	2 / 0.898	10 / 3.827	8 / 2.927	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 23.080	- / 4.530	- / 9.291	- / 5.276	- / -	- / 5.276	- / 5.361	- / 0.898	- / 3.827	- / 2.927	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 3.255	- / 0.272	- / 0.557	- / 0.316	- / -	- / 0.316	- / 0.322	- / 0.053	- / 0.231	- / 0.146	- / -	- / 5.152	
2.2) DSA - FMP	- / 2.566	- / 0.644	- / 0.744	- / 0.406	- / -	- / 0.406	- / 0.439	- / 0.156	- / 0.268	- / 0.245	- / -	- / 5.468	
<i>Subtotal: Support</i>	- / 5.821	- / 0.916	- / 1.301	- / 0.722	- / -	- / 0.722	- / 0.761	- / 0.209	- / 0.499	- / 0.391	- / -	- / 10.620	
Installation													
<i>Modification Item 1 of 1: (1R0013) Navigation Warfare (NAVWAR) Installation</i>	- / 11.257	- / 2.160	- / 1.767	- / 2.470	- / -	- / 2.470	- / 1.351	- / 1.540	- / 0.230	- / 1.200	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 11.257	- / 2.160	- / 1.767	- / 2.470	- / -	- / 2.470	- / 1.351	- / 1.540	- / 0.230	- / 1.200	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	40.158	7.606	12.359	8.468	-	8.468	7.473	2.647	4.556	4.518	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2657 / NAVSTAR GPS Receivers (Space)	Modification Number / Title: 1 / (1R0013) Navigation Warfare (NAVWAR) Installation

Modification Item 1 of 1: (1R0013) Navigation Warfare (NAVWAR) Installation

Manufacturer Information

Manufacturer Name: RAYTHEON SYSTEMS LTD	Manufacturer Location: HARLOW-UNITED KINGDOM
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 9

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017				
Delivery Dates	Nov 2015	Nov 2016	Nov 2017				

Installation Information

Method of Implementation: Tiger Team:: Installation Name: NAVWAR Inc 1 - GAS1, Inc 2 - ADAP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	339 / 11.257	24 / 2.160	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	363 / 13.417
FY 2015	- / -	- / -	19 / 1.767	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 1.767
FY 2016	- / -	- / -	- / -	26 / 2.470	- / -	26 / 2.470	- / -	- / -	- / -	- / -	- / -	26 / 2.470
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	13 / 1.351	- / -	- / -	- / -	- / -	13 / 1.351
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.540	- / -	- / -	- / -	14 / 1.540
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.230	- / -	- / -	2 / 0.230
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.200	- / -	10 / 1.200
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	339 / 11.257	24 / 2.160	19 / 1.767	26 / 2.470	- / -	26 / 2.470	13 / 1.351	14 / 1.540	2 / 0.230	10 / 1.200	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	339	-	8	6	10	-	8	8	3	-	9	9	8	-	5	4	4	-	5	5	4	-	1	1	-	-	3	3	4	Cont.	Cont.
Out	339	-	-	8	6	10	-	8	8	3	-	9	9	8	-	5	4	4	-	5	5	4	-	1	1	-	-	3	3	Cont.	Cont.

Footnotes:
 (1) a) SEA NAVWAR pricing for ADAP/ADAP Fiber Optic Antenna Link (FOAL) units procured from Raytheon Sys. Ltd in the United Kingdom are most affected by Economic Order Quantity (EOQ) price breaks in conjunction with the total order placed by the GPS Antennas Program Office, Robins AFB GA. Life Cycle Cost Estimate (LCCE) is predicated on maximizing EOQ price structure in the ADAP contract. Unit price fluctuations are also caused by estimated exchange rates, inflation, and hardware configurations for ADAP & ADAP FOAL and component kits. b) INC2 ADAP FOAL Shipsets include two ADAP FOAL Antennas & two Component Kits with relation to the procurement and installation of a Shipset.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	26.429	4.524	4.240	4.577	-	4.577	4.530	4.480	4.614	4.714	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	26.429	4.524	4.240	4.577	-	4.577	4.530	4.480	4.614	4.714	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	26.429	4.524	4.240	4.577	-	4.577	4.530	4.480	4.614	4.714	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.385	-	-	-	-	-	-	-	-	-	0.385
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in AFRTS by \$0.19M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

K0001: American Forces Radio and Television Service (AFRTS) Program - AFRTS shipboard systems provide command information to deployed Sailors and Marines and allow for the distribution of AFRTS programming in order to provide situational awareness for forward deployed commanders with real-time news and information. The systems also provide programming to Sailors and Marines at sea worldwide as a Navy Quality of Life (QOL) initiative, staying in compliance with the Chief of Naval Operations (CNO) Shipboard Habitability Program. These systems contribute significantly to the habitability of Navy ships by providing and distributing news, command information, training, and entertainment programming using the latest technology available. These systems improve morale, combat effectiveness and retention rates of deployed personnel. All AFRTS systems use Commercial-Off-the-Shelf (COTS) equipment. Fleet Support Detachments (FSDs) are the installing agents for these systems. Each component replacement is made based on ship availability, condition of system, and is coordinated through the Type Commanders (TYCOMs).

[P5 / Site Digital Server]: The Shipboard Information, Training and Entertainment (SITE) digital upgrade installs a digital based video server within each SITE system. The Video Server allows for AFRTS programming and Navy Motion Picture Service Movies to be stored within the SITE system, adhering to Motion Picture Association of America Digital Rights Management standards. Media is decrypted at moment of playback. Hard drive/server allows for 30-day automated playback. Automated playlist is standard with pre-programmed, 30-day schedule, and the ship has the ability to modify as necessary. Each server installation is made based on ship availability by the FSD as the installing agents.

[P5 / Site CCTV - Digital/300]: K0001 - Shipboard Information, Training and Entertainment (SITE) Closed Circuit Television (CCTV) - Digital/300 - Digital/300 is the next generation of the SITE 2000/300. This system is a digitally-based replacement for the 2000/300 playback. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/replacement agents and condition of the system.

[P5 / Site CCTV - Digital/400]: Shipboard Information, Training and Entertainment (SITE) Closed Circuit Television (CCTV) - Digital/400 - is the next generation of the SITE 2000/400. This system is a digitally-based replacement for the 2000/400 playback. Requires manpower of one dedicated technician and operator. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/replacement agents and condition of the system.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment		P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)
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	
<p>[P5 / Site CCTV - Digital/501]: Digital/500 - is the next generation of the Shipboard Information, Training and Entertainment (SITE) 2000/500. This system is a digitally-based replacement for the 2000/500 playback. Requires manpower of two dedicated technicians and three operators. Each system is comprised of Commercial Off-The-Shelf (COTS) components that take three to twelve months to procure. Each component upgrade/replacement is made based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/repair agents and condition of the system.</p> <p>[P5 / Circuit 27TV Upgrade]: Circuit 27TV Upgrade - Upgrade to 14TV head end only that will allow the onboard Shipboard Information, Training and Entertainment (SITE) system to distribute Television Direct To Sailors (TV-DTS), AFRTS, and pier-side cable commercial programming. Each component upgrade/replacement is made based on ship availability by the Fleet Support Detachments (FSDs) as the installing/replacement agents and the condition of the system.</p> <p>[P5 / Circuit 30 TV Upgrade]: K0001-Circuit 30TV: The Digital Media Transport System (Circuit 30TV) is the main video distribution network for unclassified media generated by the Shipboard Broadcast System (SBS), Circuit 28TV surveillance and Circuit 29TV satellite systems. Each system is comprised of Commercial Off-The-Shelf (COTS) equipment that takes six to twelve months to procure. Each system upgrade is done based on ship availability, by the Fleet Support Detachments (FSDs) as the installing/replacing agent and condition of the system.</p> <p>[P5 / Shipboard Broadcast System (SBS)]: K0001-Shipboard Broadcast System (SBS): The SBS system replaces the Shipboard Information, Training and Entertainment (SITE) 300/400/501 systems with an Internet Protocol (IP) video system. It collects and converts video content from several sources: Navy Motion Picture Services (NMPS) programming via encrypted DVDs (nDVD), Video Server, and shipboard surveillance cameras; and distributes the signals via Circuit 30 in Standard or High Definition. Each system is comprised of Commercial Off-The-Shelf (COTS) equipment that takes six to twelve months to procure. Each system upgrade is done based on ship availability by the Fleet Support Detachments (FSDs) as the installing/replacing agent and condition of the system.</p> <p>[P5 / K0830 - Production Engineering]: Supports review and approval of any production contract technical documentation or the separate development of this documentation to include: signal flow diagrams, Preventive Maintenance Services (PMS), production drawings, provisioning technical documentation (PTD), Integrated Logistic Support (ILS), Program Support Data (PSD), Allowance Parts List (APL's), and engineering in support of final design reviews.</p> <p>[P5 / K0INS - Non-FMP Installation]: Supports the installation of Shipboard Information, Training and Entertainment (SITE), TV-DTS (TV-Direct to Sailor) system onboard Navy ships. Installations are performed by Defense Media Activity Agency (DMAA) Fleet Support Detachments (FSDs) and are based on Type Commander (TYCOM) nominations.</p>		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / American Forces Radio and TV Service (AFRTS)	P-5a		- / 26.429	- / 4.524	- / 4.240	- / 4.577	- / -	- / 4.577
P-40	Total Gross/Weapon System Cost			- / 26.429	- / 4.524	- / 4.240	- / 4.577	- / -	- / 4.577

*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.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)	Item Number / Title [DODIC]: 1 / American Forces Radio and TV Service (AFRTS)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	26.429	4.524	4.240	4.577	-	4.577
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	26.429	4.524	4.240	4.577	-	4.577
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	26.429	4.524	4.240	4.577	-	4.577

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	0.385	-	-	-	-
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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
1.1.1) Site Digital Server ^(f)	97,000.00	19	1.843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) Site CCTV - Digital/300 ^(f) (1)	77,000.00	20	1.540	90,000.00	4	0.360	90,000.00	4	0.360	95,000.00	5	0.475	-	-	-	95,000.00	5	0.475
1.1.3) Site CCTV - Digital/400 ^(f)	45,263.16	19	0.860	90,000.00	3	0.270	95,000.00	3	0.285	100,000.00	3	0.300	-	-	-	100,000.00	3	0.300
1.1.4) Site CCTV - Digital/501 ^(f)	107,666.67	3	0.323	115,000.00	1	0.115	115,000.00	1	0.115	115,000.00	1	0.115	-	-	-	115,000.00	1	0.115
1.1.5) Circuit 27TV Upgrade ^(f)	20,000.00	15	0.300	21,000.00	5	0.105	22,000.00	4	0.088	22,000.00	6	0.132	-	-	-	22,000.00	6	0.132
<i>Subtotal: Recurring Cost</i>	-	-	<i>4.866</i>	-	-	<i>0.850</i>	-	-	<i>0.848</i>	-	-	<i>1.022</i>	-	-	-	-	-	<i>1.022</i>
<i>Subtotal: Hardware Cost</i>	-	-	4.866	-	-	0.850	-	-	0.848	-	-	1.022	-	-	-	-	-	1.022
Support Cost																		
2.1) K0830 - Production Engineering	-	-	18.462	-	-	3.475	-	-	3.192	-	-	3.357	-	-	-	-	-	3.357
2.2) K0INS - Non-FMP Installation	-	-	3.101	-	-	0.199	-	-	0.200	-	-	0.198	-	-	-	-	-	0.198
<i>Subtotal: Support Cost</i>	-	-	21.563	-	-	3.674	-	-	3.392	-	-	3.555	-	-	-	-	-	3.555
Gross/Weapon System Cost	-	-	26.429	-	-	4.524	-	-	4.240	-	-	4.577	-	-	-	-	-	4.577

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)	Item Number / Title [DODIC]: 1 / American Forces Radio and TV Service (AFRTS)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

(†) indicates the presence of a P-5a

Footnotes:

(1) Costs for FY 15, 16 and 17 CE 1.1.2, 1.1.3, 1.1.4 reflect full unit costs for SITE CCTV. Those units complete the fielding of the SITE 300(U), 400(U) and 501(U) digital systems throughout all applicable ship classes. The FY19-21 costs on those lines reflect obsolescence upgrades which affect a smaller number of components, primarily the encrypted DVD players. The cost is lower, which allows the program to procure more. CE 1.1.7 shows the follow-on system to SITE CCTV, called SBS (Shipboard Broadcasting System). It uses IP technology, the new industry standard, and will be introduced starting in FY18 as aging SITE systems reach end of life.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2666 / American Forces Radio and TV Service (AFRTS)	Item Number / Title [DODIC]: 1 / American Forces Radio and TV Service (AFRTS)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Site Digital Server		2012	Various / Various	MIPR	T-ASA	Jun 2012	Dec 2012	9	97,000.00	Y		
1.1.1) Site Digital Server		2014	Various / Various	MIPR	T-ASA	Jun 2014	Dec 2014	10	97,000.00	Y		
1.1.2) Site CCTV - Digital/300		2012	Various / Various	MIPR	T-ASA	Jun 2012	Dec 2012	2	5,000.00	Y		
1.1.2) Site CCTV - Digital/300		2013	Various / Various	MIPR	T-ASA	May 2013	Nov 2013	7	85,000.00	Y		
1.1.2) Site CCTV - Digital/300		2014	Various / Various	MIPR	T-ASA	Jun 2014	Dec 2014	11	85,000.00	Y		
1.1.2) Site CCTV - Digital/300		2015	Various / Various	MIPR	T-ASA	Mar 2015	Sep 2015	4	90,000.00	Y		
1.1.2) Site CCTV - Digital/300		2016	Various / Various	MIPR	T-ASA	Jan 2016	Jul 2016	4	90,000.00	Y		
1.1.2) Site CCTV - Digital/300		2017	Various / Various	MIPR	T-ASA	Dec 2016	Jun 2017	5	95,000.00	Y		
1.1.3) Site CCTV - Digital/400		2012	Various / Various	MIPR	T-ASA	Jun 2012	Dec 2012	10	5,000.00	Y		
1.1.3) Site CCTV - Digital/400		2013	Various / Various	MIPR	T-ASA	May 2013	Nov 2013	3	90,000.00	Y		
1.1.3) Site CCTV - Digital/400		2014	Various / Various	MIPR	T-ASA	Jun 2014	Dec 2014	6	90,000.00	Y		
1.1.3) Site CCTV - Digital/400		2015	Various / Various	MIPR	T-ASA	Mar 2015	Sep 2015	3	90,000.00	Y		
1.1.3) Site CCTV - Digital/400		2016	Various / Various	MIPR	T-ASA	Jan 2016	Jul 2016	3	95,000.00	Y		
1.1.3) Site CCTV - Digital/400		2017	Various / Various	MIPR	T-ASA	Dec 2016	Jun 2017	3	100,000.00	Y		
1.1.4) Site CCTV - Digital/501		2012	Various / Various	MIPR	T-ASA	Jun 2012	Dec 2012	1	110,000.00	Y		
1.1.4) Site CCTV - Digital/501		2013	Various / Various	MIPR	T-ASA	May 2013	Nov 2013	1	103,000.00	Y		
1.1.4) Site CCTV - Digital/501		2014	Various / Various	MIPR	T-ASA	Jun 2014	Dec 2014	1	110,000.00	Y		
1.1.4) Site CCTV - Digital/501		2015	Various / Various	MIPR	T-ASA	Mar 2015	Sep 2015	1	115,000.00	Y		
1.1.4) Site CCTV - Digital/501		2016	Various / Various	MIPR	T-ASA	Jan 2016	Jul 2016	1	115,000.00	Y		
1.1.4) Site CCTV - Digital/501		2017	Various / Various	MIPR	T-ASA	Dec 2016	Jun 2017	1	115,000.00	Y		
1.1.5) Circuit 27TV Upgrade		2013	Various / Various	MIPR	T-ASA	May 2013	Nov 2013	7	20,000.00	Y		
1.1.5) Circuit 27TV Upgrade		2014	Various / Various	MIPR	T-ASA	Jun 2014	Dec 2014	8	20,000.00	Y		
1.1.5) Circuit 27TV Upgrade		2015	Various / Various	MIPR	T-ASA	Mar 2015	Sep 2015	5	21,000.00	Y		
1.1.5) Circuit 27TV Upgrade		2016	Various / Various	MIPR	T-ASA	Jan 2016	Jul 2016	4	22,000.00	Y		
1.1.5) Circuit 27TV Upgrade		2017	Various / Various	MIPR	T-ASA	Dec 2016	Jun 2017	6	22,000.00	Y		

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2676 / Strategic Platform Support Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	26.219	7.308	17.440	8.972	-	8.972	6.821	6.922	7.069	7.221	-	87.972
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	26.219	7.308	17.440	8.972	-	8.972	6.821	6.922	7.069	7.221	-	87.972
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	26.219	7.308	17.440	8.972	-	8.972	6.821	6.922	7.069	7.221	-	87.972

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.894	0.989	1.224	-	1.224	1.179	1.194	0.993	1.012	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding in this P-1 line provides Non-Propulsion Electronics equipment that will be installed aboard TRIDENT Class submarines as part of the Obsolete Equipment Replacement (OER) Program.

The OBSOLETE EQUIPMENT REPLACEMENT (OER) Program is the replacement of existing hardware/software that, though functional, has become operationally obsolete, is no longer in production or supportable with spare parts, or has a high failure rate making them no longer cost effective to maintain. OER hardware/software changes are expected to provide significant cost savings via reduced maintenance costs and use Commercial-Off-The-Shelf (COTS) technology wherever possible as long as all technical requirements are met.

This funding line includes performance of the required fully integrated system level testing and certification of changes to the TRIDENT Combat systems prior to installation of the changes on the ship. Integrated testing and certification provides assurance that when the changes are installed in the ship, the TRIDENT Combat system will operate as designed, allowing the ships to maintain their operational schedules and mission capabilities.

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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 02: Communications & Electronics Equip / BSA 7: Other Ship Electronic Equipment	P-1 Line Item Number / Title: 2676 / Strategic Platform Support Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Strategic Platform Support Equip	P-5a		- / 26.219	- / 7.308	- / 17.440	- / 8.972	- / -	- / 8.972
P-40	Total Gross/Weapon System Cost			- / 26.219	- / 7.308	- / 17.440	- / 8.972	- / -	- / 8.972

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7 **P-1 Line Item Number / Title:** 2676 / Strategic Platform Support Equip **Aggregated Items Title:** Strategic Platform Support Equip

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) P1221 Strategic Platform Support Equip																				
1.1) Common Platform Engineering ^(†)	A		2,315K	3	6.944	909,000.00	1	0.909	923,000.00	1	0.923	938,000.00	1	0.938	-	-	-	938,000.00	1	0.938
1.2) CCS Revision Engineering Cert/Test	A		-	-	9.666	-	-	1.838	-	-	2.637	-	-	2.307	-	-	-	-	-	2.307
1.3) Monitoring Workstation Technology Refresh ^(†)	A		549,461.54	13	7.143	383,333.33	6	2.300	-	-	-	-	-	-	-	-	-	-	-	-
1.4) SSGN Data Processing System (DPS) Mission Critical Workstation	A		-	-	2.466	-	-	1.335	-	-	0.040	-	-	-	-	-	-	-	-	-
1.5) SSBN Legacy CCS Modernization ⁽¹⁾	A		-	-	-	-	-	0.926	-	-	13.840	-	-	5.727	-	-	-	-	-	5.727
Subtotal: 1) P1221 Strategic Platform Support Equip			-	-	26.219	-	-	7.308	-	-	17.440	-	-	8.972	-	-	-	-	-	8.972
Total			-	-	26.219	-	-	7.308	-	-	17.440	-	-	8.972	-	-	-	-	-	8.972

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

(†) indicates the presence of a P-5a

Footnotes:
⁽¹⁾ SSBN Legacy Combat Control System (CCS) Modernization program resolves Data Processing Subsystem (DPS) obsolescence issues and conjunctively supports the upgrade of the SSBN legacy CCS to the Submarine Warfare Federated Tactical Systems (SWFTS) architecture common with the SSN/SSGN classes. Collectively, the DPS and SWFTS upgrades modify Fire Control, SONAR, VMS, and RADAR, and collaterally impact Ship Control, Monitoring Subsystem, and interfaces to ship sensors such as speed, depth, and EHF. The DPS upgrade includes replacing all UYK-43 computers, DPS workstation, TRIDENT Signal Data Converters (TSDC), and the UGC-143 with a modified Electronic Control Display Unit (ECDU). The ECDU is common equipment on VA Class and planned for the ORP. The ECDU requires HW and SW development to interface to the Strategic Weapon System (SWS) Navigation and maintain critical Ship to SWS interface requirements. No boat is impacted in FY16 but SWFTS installations begin in FY17. The ECDU and all the associated CCS architecture modifications are required to be installed conjunctively with SWFTS. Continued operation of the SSBN strategic mission will require the implementation of the ECDU upgrade along with the SWFTS upgrade. Therefore, starting in FY17, 2 hulls per year are impacted if the SSBN legacy CCS Modernization program is not executed as planned.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 7	P-1 Line Item Number / Title: 2676 / Strategic Platform Support Equip	Aggregated Items: Strategic Platform Support Equip
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) P1221 Strategic Platform Support Equip												
1.1) Common Platform Engineering		2012	NUWC NPT / NEWPORT, RI	WR	NAVSEA	Apr 2012	Aug 2012	1	892,000.00	Y		
1.1) Common Platform Engineering		2013	NUWC NPT / NEWPORT, RI	WR	NAVSEA	Apr 2013	Aug 2013	1	916,000.00	Y		
1.1) Common Platform Engineering		2014	NUWC NPT / NEWPORT, RI	WR	NAVSEA	Apr 2014	Aug 2014	1	805,000.00	Y		
1.1) Common Platform Engineering		2015	NUWC NPT / NEWPORT, RI	WR	NAVSEA	Apr 2015	Aug 2015	1	909,000.00	Y		
1.1) Common Platform Engineering		2016	NUWC NPT / NEWPORT, RI	WR	NAVSEA	Apr 2016	Aug 2016	1	923,000.00	Y		
1.3) Monitoring Workstation Technology Refresh		2012	NSWC/CD / PHILADELPHIA, PA	WR	NAVSEA	Apr 2012	Aug 2012	3	500,000.00	Y		
1.3) Monitoring Workstation Technology Refresh		2013	NSWC/CD / PHILADELPHIA, PA	WR	NAVSEA	Apr 2013	Aug 2013	4	425,000.00	Y		
1.3) Monitoring Workstation Technology Refresh		2014	NSWC/CD / PHILADELPHIA, PA	WR	NAVSEA	Apr 2014	Aug 2014	6	350,000.00	Y		

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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 02: Communications & Electronics Equip /
 BSA 8: Training Equipment **P-1 Line Item Number / Title:**
 2762 / Other Training 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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	184.949	42.810	41.314	-	-	-	-	-	-	-	9.247	278.320
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	184.949	42.810	41.314	-	-	-	-	-	-	-	9.247	278.320
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	184.949	42.810	41.314	-	-	-	-	-	-	-	9.247	278.320

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.270	0.232	-	-	-	-	-	-	-	-	0.502
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Funding referenced in project units MB044/MB050 (submarine) was realigned into LI 5661 beginning in FY17.

Funding referenced in project unit MB040 (surface) was realigned into LI 5664 beginning in FY17.

Other Training Equipment line supports various types of Communication and Electronic training requirements.

[P40A / MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT]: MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT

This line procures submarine Fleet and team trainers sustaining equipment and systems, which emulate ship characteristics, as approved by the CNO. Representative training systems include, but are not limited to: Submarine Navigation Trainers which include the Virtual Environment Submarine (VESUB), Submarine Piloting and Navigation Trainers (SPAN), Reconfigurable SPAN (RSPAN), Submarine Bridge Trainer/Integrated SPAN (SBT/ISPAN), Navigation Databases, Ship Control Operator Trainer (SCOT), Electronic Chart Display and Information Systems-Navy (ECDIS-N) and PC-based Team Trainers which include the Mini-SPANs. These systems and Training Enhancement Changes (TECs) are identified by the Submarine Learning Center (SLC) for training activities, which are approved by the CNO. Supports Fleet requested updates and technical refresh of all the systems and products listed above. The SBT/ISPAN and upgrades to the existing navigation and mariner skills trainer in all homeports will be procured. The ISPAN Light Emitting Diode (LED) Ring will be procured for Homeports where an SBT Dome can't be accommodated. This line also provides configuration changes for the Voyage Management Systems (VMS), ECDIS-N, and the Submarine Multi Reconfigurable Training System (MRTS).

The MRTS family includes VA CLASS Torpedo Room, Emergency Diesel Generator and Weapons Launch Console Team Trainer, which includes Submarine Communications Support System / Common Submarine Radio Room (SCSS / CSRR) trainers. SBT/ISPAN is comprised of Virtual Tactical, Sonar Simulation, Beam Forming Sonar Simulation Trainer, VMS, ECDIS-N, Radar Simulation, Navigation Aids, and Harbor Databases.

[P40A / SHIP CONTROL OPERATOR TRAINER]: Funds requested in FY 2016 will procure a Ships Control Operator Trainer for the Guam Training Facility.

[P40A / MB050 SUBMARINE SONAR TRAINERS]: MB050 SUBMARINE SONAR TRAINERS

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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 02: Communications & Electronics Equip / BSA 8: Training Equipment		P-1 Line Item Number / Title: 2762 / Other Training 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	
<p>The Sonar Employment Trainer (SET) provides acoustic operator employment Fleet and team training for submarine sonar systems. It uses entirely commercial components to contain contact and environment models, simulations of the sensors and signal processing, simulated operator consoles, and an instructional subsystem including an instructor's console. SET is used to train advanced operators in the Advanced Sonar Employment and Sonar Supervisor courses. The SET is periodically upgraded to support current software Advanced Processor Builds (APBs) and Technical Insertions (TIs). The SET is an essential component of an emerging shore based training that supports the projected technology in the Fleet systems that are designed to meet current and future threats: the Acoustics, Rapid Commercial-Off-The-Shelf (COTS) Insertion (A-RCI).</p> <p>The SET is part of the solution to increasing operator competence and data recognition through employment training by its use of 3-D graphics, animation, audio, and scientific visualization methods to illustrate highly complex displays and concepts of oceanographic physics. The demands of curriculum and student throughout at the primary submarine training site at NAVSUBSCOL, Groton dictates the number and configuration of trainers provided.</p> <p>FY15: Procures one kit and implements simulation upgrades to the SET as directed by the Type Commander.</p> <p>FY16: Procures one kit and implements simulation upgrades to the SET as directed by the Type Commander.</p> <p>[P40A / MB040 Common IAMD & ASW Trainer (CIAT)]: Support shore based Aegis Combat Training capability that cannot be replicated inside an Aegis Ship</p> <p>[P40A / Common IAMD & ASW Trainer (CIAT)]: Support shore based Aegis Combat Training capability that cannot be replicated inside an Aegis Ship</p>		

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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 02: Communications & Electronics Equip / BSA 8: Training Equipment **P-1 Line Item Number / Title:**
2762 / Other Training 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				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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Other Training Equipment	P-5a, P-21		- / 73.428	- / 13.436	- / 13.498	- / -	- / -	- / -
P-3a	1 / MB040 - BFTT SHIP SETS (TBD)			- / 64.619	- / 17.080	- / 15.545	- / -	- / -	- / -
P-3a	2 / MB040 BFTT UPGRADE KITS (TBD)			- / 46.902	- / 10.986	- / 11.582	- / -	- / -	- / -
P-3a	3 / MB040 - LHD 2 SSSD MK 2 UPGRADE (TBD)			- / 0.000	- / 1.308	- / 0.689	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 184.949	- / 42.810	- / 41.314	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Other Training Equipment	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / MB040 - BFTT SHIP SETS (TBD)			- / -	- / -	- / -	- / -	- / 9.247	- / 106.491
P-3a	2 / MB040 BFTT UPGRADE KITS (TBD)			- / -	- / -	- / -	- / -	- / -	- / 69.470
P-3a	3 / MB040 - LHD 2 SSSD MK 2 UPGRADE (TBD)			- / -	- / -	- / -	- / -	- / -	- / 1.997
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / 9.247	- / 278.320

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8 **P-1 Line Item Number / Title:** 2762 / Other Training Equipment **Aggregated Items Title:** Other Training Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT																				
1.1) SHIP CONTROL OPERATOR TRAINER ^(t)	A		-	-	2.400	-	-	-	9,100K	1	9.100	-	-	-	-	-	-	-	-	-
1.2) MINOR TRAINING SUPPORT EQUIPMENT	A		-	-	4.379	-	-	0.184	-	-	0.125	-	-	-	-	-	-	-	-	-
1.3) NAV TRAINERS UPDATES, TECH REF	A		-	-	13.317	-	-	0.048	-	-	1.082	-	-	-	-	-	-	-	-	-
1.4) MRTS SCSS/ CSRR	A		-	-	6.429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.5) SBT/ISPAN	A		-	-	18.109	-	-	3.525	-	-	1.933	-	-	-	-	-	-	-	-	-
1.6) SSN TO GUAM ^(t)	A		7,703K	1	7.703	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT			-	-	52.337	-	-	3.757	-	-	12.240	-	-	-	-	-	-	-	-	-
2) MB050 SUBMARINE SONAR TRAINERS																				
2.1) SET ^(t)	A		1,062K	9	9.557	1,237K	1	1.237	1,258K	1	1.258	-	-	-	-	-	-	-	-	-
2.2) AAT	A		288,350.00	40	11.534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) MB050 SUBMARINE SONAR TRAINERS			-	-	21.091	-	-	1.237	-	-	1.258	-	-	-	-	-	-	-	-	-
3) MB040 Common IAMD & ASW Trainer (CIAT)																				
3.1) Common IAMD & ASW Trainer (CIAT)	A		-	-	-	-	-	8.442	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) MB040 Common IAMD & ASW Trainer (CIAT)			-	-	0.000	-	-	8.442	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	73.428	-	-	13.436	-	-	13.498	-	-	-	-	-	-	-	-	-

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

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Aggregated Items: Other Training Equipment
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT												
1.1) SHIP CONTROL OPERATOR TRAINER		2016	NUWC Newport / RI	WR	** NO PCO **	Jan 2016	Apr 2016	1	9,100K	N	Sep 2016	
1.6) SSN TO GUAM ^(†)		2014	ELECTRIC BOAT / NEW LONDON	C / CPFF	NAVSEA	Dec 2013	Mar 2015	1	7,703K	N	Feb 2013	
2) MB050 SUBMARINE SONAR TRAINERS												
2.1) SET		2014	NSWC CD / BETHESDA, MD	Reqn	NSWC CD	Feb 2014	Feb 2014	1	1,094K	N	Feb 2013	
2.1) SET		2015	NSWC CD / BETHESDA, MD	Reqn	NSWC CD	Feb 2015	Feb 2015	1	1,237K	N	Feb 2014	
2.1) SET		2016	NSWC CD / BETHESDA, MD	Reqn	NSWC CD	Feb 2016	Feb 2016	1	1,258K	N	Feb 2015	

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8 **P-1 Line Item Number / Title:** 2762 / Other Training Equipment **Aggregated Items:** Other Training Equipment

Items <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 3	BAL D U E A S O F 1 O C T	Calendar Year 2014												Calendar Year 2015												
							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) MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT																															
1.6) SSN TO GUAM																															
11		2014	NAVY	1	-	1			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	A	M	J	J	A	S
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	B	A	P	A	U	U	U	E
							T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Aggregated Items: Other Training Equipment
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Items <i>(Units in Each)</i>						Fiscal Year 2016													Fiscal Year 2017													B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017													
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
1) MB044 SUBMARINE TRAINING SUPPORT EQUIPMENT																																	
1.6) SSN TO GUAM																																	
11		2014	NAVY	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Aggregated Items: Other Training Equipment
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	ELECTRIC BOAT - NEW LONDON	-	-	-	-	3	15	18	-	-	-	-

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Modification Number / Title: 1 / MB040 - BFTT SHIP SETS
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	64.619	17.080	15.545	-	-	-	-	-	-	-	9.247	106.491
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	64.619	17.080	15.545	-	-	-	-	-	-	-	9.247	106.491
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	64.619	17.080	15.545	-	-	-	-	-	-	-	9.247	106.491

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Battle Force Tactical Training (BFTT)/Total Ship Training Capability (TSTC) family of systems provide realistic joint warfare training across the spectrum of armed conflict; realistic unit level team training in all warfare areas; a means to link ships together which are in different homeports for coordinated training; external stimulation of shipboard training systems; and simulation of non-shipboard forces through Live Virtual Constructive (LVC) means. BFTT uses a distributed architecture, integrating existing training systems, and uses Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) protocols. BFTT provides ships' Commanding Officers and Strike Group/Battle Force (SG/BF) Commanders with the ability to conduct coordinated realistic, high stress, combat system level team training as an integral part of the Afloat Training Groups (ATGs), the Tactical Training Groups and C2F/C3F Fleet Synthetic Training (FSTs)/Live Virtual Constructive (LVC) exercises. The TSTC integrates existing and emergent onboard training and assessment system capabilities to simulate realistic, "train like you fight", combat-like conditions across weapon sensor and combat systems. Migration to TSTC improvements is required to ensure continued, persistent FST/LVC interoperability. Commercial off the Shelf (COTS) Obsolescence mitigates replacement and upgrade of obsolete and out-of-production COTS components in BFTT systems installed throughout the Fleet to include the AN/USQ-T46D upgrade. BFTT T46D is a core component of the TSTC.

FY15 - BFTT Ship Set funding will procure (9) T46D's and subsequent variants of hardware and software Build 3.5 series in support of AN/SQQ-89A(V)15 ACB 11, AEGIS Baseline 9, LSD 41/49. Installation funding supports installation of (16) BFTT AN/USQ-T46D Systems.

FY16 - BFTT Ship Set funding will procure (11) T46D's and subsequent variants of hardware and software Build 3.5 series in support of AN/SQQ-89A(V)15 ACB 11, AEGIS Baseline 9, LSD 41/49. Installation funding supports installation of (9) BFTT AN/USQ-T46D Systems.

Note: FY16 procurements in the amount of \$5.555M will install in FY17.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8 **P-1 Line Item Number / Title:** 2762 / Other Training Equipment **Modification Number / Title:** 1 / MB040 - BFTT SHIP SETS

Models of Systems Affected: BFTT SHIP SETS - T46D'S **Modification Type:** TBD **Related RDT&E PEs:** 0204571N

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> MB040 - BFTT SHIP SETS												
B Kits												
Recurring												
1.1.1) BFTT SHIP SETS - NonOrganic	43 / 52.263	9 / 9.000	11 / 11.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.247	63 / 81.510
<i>Subtotal: Recurring</i>	- / 52.263	- / 9.000	- / 11.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.247	- / 81.510
<i>Subtotal: MB040 - BFTT SHIP SETS</i>	43 / 52.263	9 / 9.000	11 / 11.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.247	63 / 81.510
<i>Subtotal: Procurement, All Modification Items</i>	- / 52.263	- / 9.000	- / 11.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.247	- / 81.510
Installation												
<i>Modification Item 1 of 1:</i> MB040 - BFTT SHIP SETS	- / 12.356	- / 8.080	- / 4.545	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.981
<i>Subtotal: Installation</i>	- / 12.356	- / 8.080	- / 4.545	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.981
Total												
Total Cost (Procurement + Support + Installation)	64.619	17.080	15.545	-	-	-	-	-	-	-	9.247	106.491

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Modification Number / Title: 1 / MB040 - BFTT SHIP SETS

Modification Item 1 of 1: MB040 - BFTT SHIP SETS

Manufacturer Information

Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 9			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Sep 2015	Sep 2016					

Installation Information

Method of Implementation: AIT:: Installation Name: BFTT SHIP SETS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	27 / 12.356	16 / 8.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	43 / 20.436
FY 2015	- / -	- / -	9 / 4.545	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 4.545
FY 2016	- / -	- / -	- / -	11 / -	- / -	11 / -	- / -	- / -	- / -	- / -	- / -	11 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	27 / 12.356	16 / 8.080	9 / 4.545	11 / -	- / -	11 / -	- / -	- / -	- / -	- / -	- / -	63 / 24.981

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	27	2	5	4	5	2	3	2	2	-	4	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63
Out	27	-	7	4	5	-	5	2	2	-	4	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8				P-1 Line Item Number / Title: 2762 / Other Training Equipment				Modification Number / Title: 2 / MB040 BFTT UPGRADE KITS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	46.902	10.986	11.582	-	-	-	-	-	-	-	-	69.470
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	46.902	10.986	11.582	-	-	-	-	-	-	-	-	69.470
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	46.902	10.986	11.582	-	-	-	-	-	-	-	-	69.470

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Battle Force Tactical Training (BFTT)/Total Ship Training Capability (TSTC) Upgrade Kits: Procure various quantities of upgrade kit/Engineering Change Proposal (ECP) system components, ShipAlts, Field Changes and Software Deliveries. ShipAlts are generally upgrades required to meet Combat Systems configuration requirements. Field Changes to existing BFTT, BFTT Electronic Warfare Trainer (BEWT) and Trainer Stimulator Simulator System (TSSS) systems include Information Assurance (IA) compliance, Obsolescence, Network upgrades and externally driven interface modifications. Software Deliveries required to support Combat System, IA and BFTT/BEWT/BEWT-II/TSSS Hardware requirements. Upgrade Kits and interface upgrades implement Fleet prioritized warfighting training improvements to the BFTT systems in order to meet evolving combat system capabilities. Training system improvements are a critical factor in achieving warfighter competencies and mission readiness. Unit costs are various.

FY15 - Upgrade/Field Change Kit funding will procure and integrate various BFTT/TSTC family of systems upgrades to include BEWT Baseline II Hardware & Software upgrades, BFTT Software Baselines 3.5.C, 3.5.1 & 5.0 upgrades, Naval Seamanship Ship handling Trainer and TSSS legacy radar interface upgrades. Upgrade various TSTC related shore based training systems. Provide funding to support AEGIS Shore Team Training Upgrades/Improvements for modernization. Installation funding supports installation and removal of various training system hardware/software upgrades (ECPs/FCs) on surface ships and related shore sites.

FY16 - Upgrade/Field Change Kit funding will procure and integrate various BFTT/TSTC family of systems upgrades to include BEWT Baseline II Hardware & Software upgrades, BFTT Software Baselines 3.5.C, 3.5.1 & 5.0 upgrades, Naval Seamanship Ship handling Trainer and TSSS legacy radar interface upgrades. Upgrade BFTT/TSTC Shipboard Connectivity Suite through a Tech Refresh. Upgrade various TSTC related shore based training systems. Provide funding to support AEGIS Shore Team Training Upgrades/Improvements for modernization. Installation funding supports installation and removal of various training system hardware/software upgrades (ECPs/FCs) on surface ships and related shore sites.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8					P-1 Line Item Number / Title: 2762 / Other Training Equipment					Modification Number / Title: 2 / MB040 BFTT UPGRADE KITS			
Models of Systems Affected: Battle Force Tactical Training Upgrade Kits					Modification Type: TBD					Related RDT&E PEs: 0204571N			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> MB040 BFTT UPGRADE KITS													
B Kits													
Recurring													
1.1.1) BFTT UPGRADE KITS - NonOrganic	558 / 22.799	85 / 6.148	96 / 6.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	739 / 35.175	
<i>Subtotal: Recurring</i>	- / 22.799	- / 6.148	- / 6.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.175	
<i>Subtotal: MB040 BFTT UPGRADE KITS</i>	558 / 22.799	85 / 6.148	96 / 6.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	739 / 35.175	
<i>Subtotal: Procurement, All Modification Items</i>	- / 22.799	- / 6.148	- / 6.228	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 35.175	
Installation													
<i>Modification Item 1 of 1:</i> MB040 BFTT UPGRADE KITS													
<i>Subtotal: Installation</i>	- / 24.103	- / 4.838	- / 5.354	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 34.295	
Total													
Total Cost (Procurement + Support + Installation)	46.902	10.986	11.582	-	-	-	-	-	-	-	-	69.470	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Modification Number / Title: 2 / MB040 BFTT UPGRADE KITS
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Modification Item 1 of 1: MB040 BFTT UPGRADE KITS

Manufacturer Information

Manufacturer Name: VARIOUS	Manufacturer Location: VARIOUS
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Mar 2015	Mar 2016					

Installation Information

Method of Implementation: AIT:: Installation Name: BFTT UPGRADE KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	558 / 24.103	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	558 / 24.103
FY 2015	- / -	85 / 4.838	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	85 / 4.838
FY 2016	- / -	- / -	96 / 5.354	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	96 / 5.354
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	558 / 24.103	85 / 4.838	96 / 5.354	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	739 / 34.295

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	558	-	17	35	33	-	15	42	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	558	-	17	35	33	-	15	42	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8				P-1 Line Item Number / Title: 2762 / Other Training Equipment				Modification Number / Title: 3 / MB040 - LHD 2 SSDS MK 2 UPGRADE				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	1.308	0.689	-	-	-	-	-	-	-	-	1.997
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	1.308	0.689	-	-	-	-	-	-	-	-	1.997
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	1.308	0.689	-	-	-	-	-	-	-	-	1.997
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procure a complete AN/USQ-T46D System for the LHD 2 Ship Self Defense System (SSDS) MK 2 Upgrade. Installation funding supports the installation of the LHD 2.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8				P-1 Line Item Number / Title: 2762 / Other Training Equipment						Modification Number / Title: 3 / MB040 - LHD 2 SSDS MK 2 UPGRADE			
Models of Systems Affected: LHD 2 Ship Self Defense System MK 2 Upgrade				Modification Type: TBD				Related RDT&E PEs: 0204571N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> MB040 - LHD 2 SSDS MK 2 UPGRADE													
B Kits													
Recurring													
1.1.1) MB040 - LHD 2 SSDS MK 2 UPGRADE - NonOrganic	- / -	1 / 1.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.308	
<i>Subtotal: Recurring</i>	- / 0.000	- / 1.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.308	
<i>Subtotal: MB040 - LHD 2 SSDS MK 2 UPGRADE</i>	- / -	1 / 1.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.308	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 1.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.308	
Installation													
<i>Modification Item 1 of 1:</i> MB040 - LHD 2 SSDS MK 2 UPGRADE	- / 0.000	- / -	- / 0.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.689	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.689	
Total													
Total Cost (Procurement + Support + Installation)	0.000	1.308	0.689	-	-	-	-	-	-	-	-	1.997	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 8	P-1 Line Item Number / Title: 2762 / Other Training Equipment	Modification Number / Title: 3 / MB040 - LHD 2 SSDS MK 2 UPGRADE

Modification Item 1 of 1: MB040 - LHD 2 SSDS MK 2 UPGRADE

Manufacturer Information							
Manufacturer Name: Various				Manufacturer Location: Various			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 9			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014						
Delivery Dates	Sep 2015						

Installation Information

Method of Implementation: [none specified]:: Installation Name: MB040 - LHD 2 SSDS MK 2 UPGRADE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	1 / 0.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.689
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	1 / 0.689	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.689

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

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2815 / MATCALs
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	264.586	19.779	10.011	-	-	-	-	-	-	-	-	294.376
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	264.586	19.779	10.011	-	-	-	-	-	-	-	-	294.376
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	264.586	19.779	10.011	-	-	-	-	-	-	-	-	294.376

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	2.680	0.609	-	-	-	-	-	-	-	-	3.289
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Marine Air Traffic Control and Landing Systems (MATCALs) is a fully automated all-weather expeditionary terminal Air Traffic Control (ATC) System that provides arrival/departure and enroute surveillance control, automated precision approach and landing control or Ground Controlled Approach, Tactical Air Navigation (TACAN), and other ATC services. MATCALs satisfies the operational requirements set forth by Specific Operational Requirements 34-22 of 12 Jul 1973; Remote Landing Site Tower Operational Requirements Document (ORD) 341-88-93 of 25 Jul 1997; and Air Traffic Navigation Integration and Coordination System ORD 05-002 of 03 Dec 1992.

MATCALs, with other Marine Air Command and Control Systems (MACCS) and federal agencies, provides the ability to project air combat power in the Amphibious Operations Area without regard to weather. ATC and landing automation reduces air traffic controllers' traffic handling and management time, allowing more time for mission response and task accomplishment. It supports a required increase in aircraft sortie rates and contributes to extended time on target. The system provides for integration of ATC into the total MACCS.

MATCALs has three primary subsystems: (1) Air Traffic Control Subsystem consisting of an AN/TPS-73 Airport Surveillance Radar (ASR) and various peripheral equipment; (2) All-Weather Landing Subsystem consisting of an AN/TPN-22 Precision Approach Landing Radar; and (3) the Control and Communications Subsystem (AN/TSQ-131) with a Communications Control Group, radios, computer software, multi mode displays and peripherals. Other Fleet Marine Force ATC equipment supported by the MATCALs funding line are the AN/TSQ-120 Tower, AN/TRN-44 TACAN, the AN/TSQ-216 RLST and various related items.

A portion of the current MATCALs equipment is being transitioned to the Air Surveillance and Precision Approach Radar Control Systems (ASPARCS) (Marine Requirements Oversight Committee (MROC) Decision Memorandum (DM) 11-2005 dated 8 December 2004). ASPARCS consists of an ASR, which will replace the AN/TPS-73; a Precision Approach Radar, which will replace the AN/TPN-22; and a Command and Control Node, which will replace the AN/TSQ-131. ASPARCS will provide greater mobility, transportability, reliability, maintainability, and interoperability with Marine Corps/Navy Command and Control Systems than the current MATCALs. An Acquisition Decision Memorandum was signed January 2005, approving the procurement of the Army AN/TPN-31 Air Traffic Navigation Integration and Coordination System (ATNAVICS) system to fulfill the ASPARCS requirement.

The ATNAVICS ASR Range Extension is funded to meet requirements identified in the ATC Initial Capabilities Document, MROC DM 75-7007, MACC Operational Advisory Group. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICS PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace. Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2815 / MATCALs
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	
<p>Optimized Organizational Maintenance Activity System is an automated management information system that provides Navy and Marine Corps aviation organizational maintenance units with timely and accurate information to aid managers in their daily management of assigned aircraft and equipment.</p> <p>Funding for procurements, support costs and associated installations for FY 2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).</p>		

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2815 / MATCALs

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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / MATCALs			- / 251.559	- / 6.669	- / 3.707	- / -	- / -	- / -
P-3a	1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)			- / 13.027	- / 11.022	- / 3.868	- / -	- / -	- / -
P-3a	2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability)			- / 0.000	- / 2.088	- / 2.436	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 264.586	- / 19.779	- / 10.011	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / MATCALs			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)			- / -	- / -	- / -	- / -	- / -	- / 27.917
P-3a	2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 4.524
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 294.376

*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:
Funding for procurements, support costs and associated installations for FY 2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2815 / MATCALs	Item Number / Title [DODIC]: 1 / MATCALs

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	251.559	6.669	3.707	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	251.559	6.669	3.707	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	251.559	6.669	3.707	-	-	-

(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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - MATCALs Cost																		
Recurring Cost																		
1.1.1) Prior Year Equipment ⁽¹⁾	1,231K	129	158.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	158.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - MATCALs Cost	-	-	158.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - ECP / ECO Cost																		
Recurring Cost																		
2.1.1) MAINT / RELIABILITY IMPROVEMENT (MJ427) ⁽²⁾	-	-	61.217	-	-	6.560	-	-	3.611	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	61.217	-	-	6.560	-	-	3.611	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - ECP / ECO Cost	-	-	61.217	-	-	6.560	-	-	3.611	-	-	-	-	-	-	-	-	-
Hardware - ACCEPTANCE TESTING Cost																		
Recurring Cost																		
3.1.1) Acceptance Testing (MJ860)	-	-	0.827	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	0.827	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - ACCEPTANCE TESTING Cost	-	-	0.827	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - INTEGRATED LOGISTICS Cost																		

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9						P-1 Line Item Number / Title: 2815 / MATCALs						Item Number / Title [DODIC]: 1 / MATCALs					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
4.1) ILS (MJ800)	-	-	7.217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - INTEGRATED LOGISTICS Cost</i>	-	-	7.217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - PRODUCTION ENGINEERING Cost																		
5.1) PE (MJ830)	-	-	19.067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - PRODUCTION ENGINEERING Cost</i>	-	-	19.067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - MISCELLANEOUS SUPPORT Cost																		
6.1) INITIAL TRAINING (MJ990)	-	-	0.401	-	-	0.014	-	-	-	-	-	-	-	-	-	-	-	-
6.2) Install (MJ900)	-	-	4.009	-	-	0.095	-	-	0.096	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - MISCELLANEOUS SUPPORT Cost</i>	-	-	4.410	-	-	0.109	-	-	0.096	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	251.559	-	-	6.669	-	-	3.707	-	-	-	-	-	-	-	-	-

Footnotes:

- (1) Consists of PY costs of cost elements no longer being procured.
- (2) Increase in FY2015 MRI funds procurement of 15 AN/TPX-57 IFF Interrogators in support of the ATNAVICS. The Interrogators will enable the program to meet the mandated Mode 5 full operational capability of FY2020.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2815 / MATCAL5				Modification Number / Title: 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	13.027	11.022	3.868	-	-	-	-	-	-	-	-	27.917
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	13.027	11.022	3.868	-	-	-	-	-	-	-	-	27.917
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	13.027	11.022	3.868	-	-	-	-	-	-	-	-	27.917
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Air Traffic Navigation Integration and Coordination System (ATNAVICS) Air Surveillance Radar (ASR) Range Extension is funded to meet requirements identified in the Air Traffic Control (ATC) Initial Capabilities Document, Marine Requirements Oversight Committee Decision Memorandum 75-7007, Marine Aviation Command and Control Operational Advisory Group and Headquarters Marine Corps APX-25 Requirement Clarification letter dated 05 Jan 2010. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICS PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace. Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates. The End Item Kits for the ATNAVICS ASR Range Extension that are being procured consist of: ASR transmitter, environmental control unit/power generator, Radio Frequency transmission line, ASR receiver/exciter and signal data processors and required software code modifications to system Lowest Repairable Units.

Inventory objective is 15 ASR Range Extensions. 11 procurements and installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2815 / MATCAL5					Modification Number / Title: 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)			
Models of Systems Affected: MATCAL5				Modification Type: Modification				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>													
B Kits													
Non-Recurring													
1.1.1) EQUIPMENT - NonOrganic	3 / 4.406	6 / 6.624	2 / 2.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 13.238	
<i>Subtotal: Non-Recurring</i>	- / 4.406	- / 6.624	- / 2.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.238	
<i>Subtotal: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>	3 / 4.406	6 / 6.624	2 / 2.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 13.238	
<i>Subtotal: Procurement, All Modification Items</i>	- / 4.406	- / 6.624	- / 2.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 13.238	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / 1.100	- / 0.275	- / 0.110	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.485	
2.2) Production Engineering	- / 6.009	- / 1.102	- / 0.522	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.633	
<i>Subtotal: Support</i>	- / 7.109	- / 1.377	- / 0.632	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.118	
Installation													
<i>Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>	- / 1.512	- / 3.021	- / 1.028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.561	
<i>Subtotal: Installation</i>	- / 1.512	- / 3.021	- / 1.028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.561	
Total													
Total Cost (Procurement + Support + Installation)	13.027	11.022	3.868	-	-	-	-	-	-	-	-	27.917	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2815 / MATCAL5	Modification Number / Title: 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)

Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Jun 2015	Jun 2016					

Installation Information

Method of Implementation: AIT:: Installation Name: EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	3 / 1.512	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 1.512
FY 2015	- / -	6 / 3.021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.021
FY 2016	- / -	- / -	2 / 1.028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.028
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 1.512	6 / 3.021	2 / 1.028	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 5.561

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2815 / MATCAL5			Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)					

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	2.088	2.436	-	-	-	-	-	-	-	-	4.524
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	2.088	2.436	-	-	-	-	-	-	-	-	4.524
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	2.088	2.436	-	-	-	-	-	-	-	-	4.524
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

A new start for FY15, Optimized Organizational Maintenance Activity System is an automated management information system that provides Navy and Marine Corps aviation organizational maintenance units with timely and accurate information to aid managers in their daily management of assigned aircraft and equipment.

Inventory objective is 24 OOMA. 20 procurements and 10 installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2815 / MATCAL5					Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)			
Models of Systems Affected: NAS/MCAS				Modification Type: Added Capability				Related RDT&E PEs: 0604604N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>													
B Kits													
Recurring													
1.1.1) Equipment - NonOrganic ⁽³⁾	- / -	10 / 1.500	10 / 1.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 3.054	
<i>Subtotal: Recurring</i>	- / 0.000	- / 1.500	- / 1.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.054	
<i>Subtotal: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>	- / -	10 / 1.500	10 / 1.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 3.054	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 1.500	- / 1.554	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.054	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / -	- / 0.219	- / 0.220	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.439	
2.2) Production Engineering	- / -	- / 0.319	- / 0.342	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.661	
2.3) Acceptance Testing	- / -	- / 0.050	- / 0.055	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.105	
<i>Subtotal: Support</i>	- / 0.000	- / 0.588	- / 0.617	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.205	
Installation													
<i>Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>	- / 0.000	- / -	- / 0.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.265	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.265	
Total													
Total Cost (Procurement + Support + Installation)	0.000	2.088	2.436	-	-	-	-	-	-	-	-	4.524	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2815 / MATCAL5	Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)

Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 10

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Oct 2015	Oct 2016					

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	10 / 0.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.265
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	10 / 0.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.265

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

Footnotes:

⁽³⁾ Installation of FY2016 procurement will occur in FY2017 with funding on BLI 2820.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	75.068	-	75.068	74.663	72.663	73.819	75.265	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	75.068	-	75.068	74.663	72.663	73.819	75.265	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	75.068	-	75.068	74.663	72.663	73.819	75.265	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	4.018	-	4.018	5.172	2.762	2.778	2.839	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Efforts for Marine Air Traffic Control and Landing Systems (MATCALs), National Air Space System (NASMOD), Fleet Air Traffic Control (ATC) Systems and Landing Systems were previously funded under BLSs 2815, 2840, 2845 and 2846, respectively. Subject budgets are consolidated into Ashore ATC Equipment, BLI 2820 effective FY2017.

MATCALs

MATCALs is a fully automated all-weather expeditionary terminal Air Traffic Control (ATC) System that provides arrival/departure and enroute surveillance control, automated precision approach and landing control or Ground Controlled Approach, Tactical Air Navigation (TACAN), and other ATC services. MATCALs satisfies the operational requirements set forth by Specific Operational Requirements 34-22 of 12 Jul 1973; Remote Landing Site Tower (RLST) Operational Requirements Document (ORD) 341-88-93 of 25 Jul 1997; and Air Traffic Navigation Integration and Coordination System ORD 05-002 of 03 Dec 1992.

MATCALs, with other Marine Air Command and Control Systems (MACCS) and federal agencies, provides the ability to project air combat power in the Amphibious Operations Area without regard to weather. ATC and landing automation reduces air traffic controllers' traffic handling and management time, allowing more time for mission response and task accomplishment. It supports a required increase in aircraft sortie rates and contributes to extended time on target. The system provides for integration of ATC into the total MACCS.

MATCALs has three primary subsystems: (1) Air Traffic Control Subsystem consisting of an AN/TPS-73 Airport Surveillance Radar (ASR) and various peripheral equipment; (2) All-Weather Landing Subsystem consisting of an AN/TPN-22 Precision Approach Landing Radar; and (3) the Control and Communications Subsystem (AN/TSQ-131) with a Communications Control Group, radios, computer software, multi mode displays and peripherals. Other Fleet Marine Force ATC equipment supported by the MATCALs funding line are the AN/TSQ-120 Tower, AN/TRN-44 TACAN, the AN/TSQ-216 RLST and various related items. A portion of the current MATCALs equipment is being transitioned to the Air Surveillance and Precision Approach Radar Control Systems (ASPARCS) (Marine Requirements Oversight Committee (MROC) Decision Memorandum (DM) 11-2005 dated 8 December 2004). ASPARCS consists of an ASR, which will replace the AN/TPS-73; a Precision Approach Radar, which will replace the AN/TPN-22; and a Command and Control Node, which will replace the AN/TSQ-131. ASPARCS will provide greater mobility, transportability, reliability, maintainability, and interoperability with Marine Corps/Navy Command and Control Systems than the current MATCALs. An Acquisition Decision Memorandum was signed January 2005, approving the procurement of the Army AN/TPN-31 Air Traffic Navigation Integration and Coordination System (ATNAVICS) system to fulfill the ASPARCS requirement.

The ATNAVICS ASR Range Extension is funded to meet requirements identified in the ATC Initial Capabilities Document ICD (ICD), MROC DM 75-7007, MACC Operational Advisory Group. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICS PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace.

Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates.

Optimized Organizational Maintenance Activity System is an automated management information system that provides Navy and Marine Corps aviation organizational maintenance units with timely and accurate information to aid managers in their daily management of assigned aircraft and 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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2820 / Ashore ATC 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	
<p>The AN/TRN-47(V)2 Airfield Mobile TACAN (AMTAC) is a transportable, dual channel navigation aid, which provides TACAN-equipped aircraft with range, bearing, and non-precision approach capability.</p> <p>NASMOD The Joint DoD/Federal Aviation Administration (FAA) National Airspace System (NAS) Modernization (MOD) program upgrades the DoD Air Traffic Control (ATC) systems at Approach Control Facilities in concert with the FAA's upgrade of the National ATC System. These funds will procure ATC systems for the Navy/Marine ATC facilities. The Air Force is the DoD lead activity for the Joint Acquisition Program. The Joint Program Office is located at Hanscom AFB, MA. The NAS Mod program received a full rate production decision on 7 June 2005 and is in the production and deployment phase following Milestone C.</p> <p>FLEET ATC SYSTEMS NAVAIR provides shore based Air Traffic Control (ATC) terminal facilities and equipment that are required in joint efforts to efficiently and safely monitor and direct military and commercial air traffic in national and international air space. Many of these systems are required to interface through automated means with the Federal Aviation Administration (FAA). Additionally, NAVAIR has material support responsibility for Air Navigation Aid Systems, Mobile ATC Equipment, Special Instrumentation Systems, and Ancillary Equipment used at Navy and Marine Corps Aviation Shore activities in the continental United States and overseas. Engineering Change Proposal (ECP)/Operational Capability Improvement Request (OCIR) modernization (MR069) - The ECP/OCIR program provides for the procurement and/or modification of critically needed communications, radar, displays, data processors, and other electronic systems/equipment at Navy/Marine Corps ATC facilities worldwide. ECP/OCIR procurements replace and modernize costly-to-maintain systems and equipment in order to increase ATC efficiency and safety, and reduce total ownership costs. UHF/VHF Antenna Upgrade (MR404) - This program procures and installs replacement radios, antenna and antenna cables in the UHF/VHF. Communications Systems Upgrade Program (MR408) - This program procures and installs advanced commercial state-of-the-art ATC voice switching and recording/reproduction equipment. Fiber Optic Intersite System (FOIS) Upgrade Program (MR430) - FOIS is required for Precision Approach Radar (PAR) operations and the AN/FAC-6(V)4 FOIS is required for ATC voice communications at Naval and Marine Corps ATC facilities. This program ensures continued capability of these critical ATC systems. UHF/VHF Transceiver Replacement Program (MR440) - This program modernizes aging Navy and Marine Corps UHF/VHF Transceivers that are the central core of all ATC emergency communications. Emergency Communication System (ECS) Upgrade Program (MR445) - This program modernizes obsolete and unsupported ECS equipment. Voice Switches, Recorders, Reproducers, Uninterruptable Power Supplies, and Built-In Test Equipment will be replaced with modern, supportable components. Recorder Upgrade Program (MR455) - This program procures and installs state-of-the-art ATC recording/reproducing equipment which will be used to replace aging ATC recorder systems through participation in the FAA's Next Generation Recorder Program. Air Field Lighting Control System (AFLCS) (MR510) - This program modernizes obsolete and unsupported AFLCS equipment which will be replaced with modern, supportable components. Operational Communication System (OCS)/Emergency Communication System (ECS) Air Traffic Control (ATC) Recorder replacement program (MR520), through participation in the Federal Aviation Administration's (FAA) ATC recorder replacement program will replace aging and obsolete ATC OCS and ECS ATC recorders with state of the art ATC recording/reproducing technology. The Chief of Naval Operations (CNO) tasked Naval Air Systems Command (NAVAIR) with the requirement to provide shore based Air Traffic Control (ATC) terminal facilities and equipment that are required to efficiently and safely monitor and direct military and commercial air traffic in national and international air space. Many of these systems are required to interface through automated means with the Federal Aviation Administration (FAA). Additionally, NAVAIR has material support responsibility for Air Navigation Aid Systems, Mobile ATC Equipment, Special Instrumentation Systems, and Ancillary Equipment used for ATC and Landing Systems (LS) by the Navy and Marine Corps. This Landing Systems program, in conjunction with the Fleet ATC Systems and the National Airspace System Modernization program provide the three pillars by which the Navy supports and meets established requirements to modernize and ensure reliable, safe and effective operations of ATC & LS used at the Navy and Marine Corps air stations worldwide. Fiber Optic Communications Intersite System (FOCIS) Upgrade Program (MR530) - FOCIS is required for Precision Approach Radar (PAR) operations and the AN/FAC-6(V)4 FOCIS is required for ATC voice communications at Naval and Marine Corps ATC facilities. This program ensures continued capability of these critical ATC systems.</p> <p>LANDING SYSTEMS This Landing Systems budget provides funding to modernize and ensure the reliability of Precision Approach Radars (PAR), Tactical Air Navigation (TACAN) systems, and other air navigation aids used by the Navy and Marine Corps.</p>		

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2820 / Ashore ATC 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	
<p>PAR Commercial-off-the-shelf (COTS) Upgrade Engineering Change Proposals (ECPs) update old technology and extend the service life of the PAR. The PAR Upgrade ECPs consist of the Modulator Board Upgrade ECP, the Antenna Upgrade ECP, the Configuration Upgrade ECP, the Turntable Upgrade ECP, the Fiber Optic Intersite System (FOIS) ECP, the Angle Voltage Generator (AVG) Upgrade ECP, and the Technology Refresh Upgrade ECP.</p> <p>TACAN Upgrade ECPs update old technology and extend the service life of the TACAN. The TACAN sustainment consists of the Antenna Upgrade ECP, the Shelter Upgrade ECP and the Beacon Upgrade ECP.</p>		

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity:
1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2820 / Ashore ATC 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

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / MATCALs			- / 0.000	- / -	- / -	- / 2.542	- / -	- / 2.542
P-5	2 / Fleet Air Traffic Control Systems			- / 0.000	- / -	- / -	- / 8.292	- / -	- / 8.292
P-5	3 / Landing Systems			- / 0.000	- / -	- / -	- / 2.991	- / -	- / 2.991
P-3a	1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)			- / 0.000	- / -	- / -	- / 4.069	- / -	- / 4.069
P-3a	2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability)			- / 0.000	- / -	- / -	- / 1.687	- / -	- / 1.687
P-3a	3 / MJ465 AMTAC (Modification)			- / 0.000	- / -	- / -	- / 4.300	- / -	- / 4.300
P-3a	4 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)			- / 0.000	- / -	- / -	- / 4.841	- / -	- / 4.841
P-3a	5 / CB030 Digital Airport Surveillance Radar (DASR) (Added Capability)			- / 0.000	- / -	- / -	- / 0.400	- / -	- / 0.400
P-3a	6 / CB040 Tower Automation System (TAS) (Added Capability)			- / 0.000	- / -	- / -	- / 0.200	- / -	- / 0.200
P-3a	7 / CB050 STARS TECH Refresh Upgrade (AIT)			- / 0.000	- / -	- / -	- / 11.360	- / -	- / 11.360
P-3a	8 / CB070 TAS Tech Refresh (Added Capability)			- / 0.000	- / -	- / -	- / 4.055	- / -	- / 4.055
P-3a	9 / CB080 NAS Voice System (NVS) (Added Capability)			- / 0.000	- / -	- / -	- / 6.350	- / -	- / 6.350
P-3a	10 / X1036 AN/FPN-63 PAR TECH REFRESH (Reliability)			- / 0.000	- / -	- / -	- / 10.703	- / -	- / 10.703
P-3a	11 / X1037 PAR ILS Upgrade (TBD)			- / 0.000	- / -	- / -	- / 5.385	- / -	- / 5.385
P-3a	12 / X1043 TACAN Antenna Upgrade (Modernization)			- / 0.000	- / -	- / -	- / 7.893	- / -	- / 7.893
P-40	Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 75.068	- / -	- / 75.068

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / MATCALs			- / -	- / -	- / -	- / -	- / -	- / -
P-5	2 / Fleet Air Traffic Control Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-5	3 / Landing Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455) (Modification)			- / 2.402	- / 2.397	- / -	- / -	- / -	- / 8.868
P-3a	2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 1.687
P-3a	3 / MJ465 AMTAC (Modification)			- / 4.400	- / -	- / -	- / -	- / -	- / 8.700
P-3a	4 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)			- / 4.128	- / 1.735	- / 0.453	- / 0.400	Continuing	Continuing
P-3a	5 / CB030 Digital Airport Surveillance Radar (DASR) (Added Capability)			- / 0.400	- / 0.350	- / 0.376	- / 0.300	- / -	- / 1.826
P-3a	6 / CB040 Tower Automation System (TAS) (Added Capability)			- / 0.200	- / 0.180	- / 0.504	- / 0.373	Continuing	Continuing
P-3a	7 / CB050 STARS TECH Refresh Upgrade (AIT)			- / 14.219	- / 16.905	- / 16.423	- / 5.595	Continuing	Continuing
P-3a	8 / CB070 TAS Tech Refresh (Added Capability)			- / 2.628	- / 3.342	- / 2.681	- / 0.655	Continuing	Continuing

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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 02: Communications & Electronics Equip /
 BSA 9: Aviation Electronic Equipment **P-1 Line Item Number / Title:**
 2820 / Ashore ATC 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

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	9 / CB080 NAS Voice System (NVS) (Added Capability)			- / 7.465	- / 6.542	- / 9.118	- / 22.858	Continuing	Continuing
P-3a	10 / X1036 AN/FPN-63 PAR TECH REFRESH (Reliability)			- / 11.430	- / 11.992	- / 11.746	- / 12.073	Continuing	Continuing
P-3a	11 / X1037 PAR ILS Upgrade (TBD)			- / 5.235	- / 6.276	- / 7.414	- / 7.719	Continuing	Continuing
P-3a	12 / X1043 TACAN Antenna Upgrade (Modernization)			- / 8.218	- / 10.986	- / 10.649	- / 10.572	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 74.663	- / 72.663	- / 73.819	- / 75.265	Continuing	Continuing

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

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

Justification:

MATCALs
 FY2017 provides funding to procure Maintainability/Reliability Improvements, 2 ATNAVICS Range Extensions, 4 OOMA site upgrades, and 3 AMTACs.

NASMOD
 The Federal Aviation Administration (FAA) began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information to augment ground-based radar. Existing DoD Air Traffic Control (ATC) facilities interface with FAA's facilities, therefore the military must maintain interoperability and retain vital special-use airspace for combat readiness training. The DoD Advanced Automation System (DAAS) must be upgraded to meet this requirement.

FY2017 provides funding to procure 2 DoD Advanced Automation Systems, 7 STARS Tech Refresh Upgrades, 10 TAS Tech Refresh, 592 NAS Voice System Radios, various Engineering Change Proposals (ECPs) and associated support.

FLEET ATC SYSTEMS
 The basis for the FY2017 budget request is to continue modernizing aging Navy and Marine Corps ATC facilities and equipment in order to safely monitor and direct military and commercial air traffic in national and international air space. This equipment must continue to interface through automated means with the FAA.
 FY2017 provides funding to procure 2 Communication System Upgrades, 60 UHF/VHF Transceiver Replacements, 5 ECS Upgrades, 3 Airfield Lighting Control Systems, various ECPs and associated support.

LANDING SYSTEMS
 FY2017 provides funding to procure: 2 PAR Tech Refresh COTs, 4 PAR COTS ILS Upgrades, 11 TACAN Antenna Upgrade, and 8 TACAN Beacon Upgrades.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Item Number / Title [DODIC]: 1 / MATCAL5

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	2.542	-	2.542
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	2.542	-	2.542
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	2.542	-	2.542

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>	Unit Cost <i>(\$)</i>	Qty <i>(Each)</i>	Total Cost <i>(\$ M)</i>
Hardware - ECP / ECO Cost																		
Recurring Cost																		
1.1.1) MAINT / RELIABILITY IMPROVEMENT (MJ427)	-	-	0.000	-	-	-	-	-	-	-	-	2.444	-	-	-	-	-	2.444
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	2.444	-	-	-	-	-	2.444
<i>Subtotal: Hardware - ECP / ECO Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	2.444	-	-	-	-	-	2.444
Support - MISCELLANEOUS SUPPORT Cost																		
5.2) Install (MJ900)	-	-	0.000	-	-	-	-	-	-	-	-	0.098	-	-	-	-	-	0.098
<i>Subtotal: Support - MISCELLANEOUS SUPPORT Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	0.098	-	-	-	-	-	0.098
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	2.542	-	-	-	-	-	2.542

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Item Number / Title [DODIC]: 2 / Fleet Air Traffic Control Systems

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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	-	-	8.292	-	8.292
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	-	8.292	-	8.292
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	8.292	-	8.292

(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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Fleet ATC - Hardware Cost																		
Recurring Cost																		
1.1.1) MR069 ECP/OCIR ⁽¹⁾	-	-	0.000	-	-	-	-	-	-	75,000.00	1	0.075	-	-	-	75,000.00	1	0.075
1.1.3) MR408 COMM System Upgrade ⁽²⁾	-	-	0.000	-	-	-	-	-	-	500,000.00	2	1.000	-	-	-	500,000.00	2	1.000
1.1.4) MR440 UHF/VHF Transceiver Replacement ⁽³⁾	-	-	0.000	-	-	-	-	-	-	21,000.00	60	1.260	-	-	-	21,000.00	60	1.260
1.1.5) MR445 Emergency Communication System (ECS) Upgrade ⁽⁴⁾	-	-	0.000	-	-	-	-	-	-	431,200.00	5	2.156	-	-	-	431,200.00	5	2.156
1.1.6) MR510 Air Field Lighting Control System ⁽⁵⁾	-	-	0.000	-	-	-	-	-	-	305,000.00	3	0.915	-	-	-	305,000.00	3	0.915
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	5.406	-	-	-	-	-	5.406
Subtotal: Hardware - Fleet ATC - Hardware Cost	-	-	0.000	-	-	-	-	-	-	-	-	5.406	-	-	-	-	-	5.406
Support - Other Cost																		
2.1) Fleet ATC Integrated Logistics Support (MR800)	-	-	0.000	-	-	-	-	-	-	-	-	0.180	-	-	-	-	-	0.180

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Item Number / Title [DODIC]: 2 / Fleet Air Traffic Control Systems
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
2.2) Fleet ATC Production Engineering (MR830)	-	-	0.000	-	-	-	-	-	-	-	-	0.346	-	-	-	-	-	0.346
2.3) Fleet ATC Installs	-	-	0.000	-	-	-	-	-	-	-	-	2.360	-	-	-	-	-	2.360
<i>Subtotal: Support - Other Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>2.886</i>	-	-	-	-	-	<i>2.886</i>
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	8.292	-	-	-	-	-	8.292

Footnotes:

- (1) MR069: Number and unit costs of Operational Capability Improvement Requests (OCIR) costs can vary significantly between fiscal years. The unit cost for an individual OCIR can range in price from \$1,500 to \$175,000 so the unit cost is an average of all the OCIRS and therefore appears to fluctuate from year to year.
- (2) MR408: Inventory objective is 59. 57 procurements and 56 installs were funded prior to FY2017 and are reflected on BLI 2845.
- (3) MR440: Inventory objective is 330. 249 procurements and installs were funded prior to FY2017 and are reflected on BLI 2845.
- (4) MR445: Inventory objective is 45. 27 procurements and 24 installations were funded prior to FY2017 and are reflected on BLI 2845.
- (5) MR510: Inventory objective is 45. 3 procurements and 1 installation were funded prior to FY2017 and are reflected on BLI 2845.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Item Number / Title [DODIC]: 3 / Landing Systems

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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	-	-	2.991	-	2.991
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	-	2.991	-	2.991
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	2.991	-	2.991

(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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Landing Systems Cost																		
Recurring Cost																		
1.1.1) X1042 - TACAN BEACON UPGRADE (6)	-	-	0.000	-	-	-	-	-	-	224,250.00	8	1.794	-	-	-	224,250.00	8	1.794
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>1.794</i>	-	-	-	-	-	<i>1.794</i>
<i>Subtotal: Hardware - Landing Systems Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>1.794</i>	-	-	-	-	-	<i>1.794</i>
Support - Other Cost																		
2.1) X1800 - Landing Systems Integrated Logistics Support	-	-	0.000	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	0.300
2.2) X1830 - Landing Systems Production Engineering	-	-	0.000	-	-	-	-	-	-	-	-	0.671	-	-	-	-	-	0.671
2.3) X1840 - Landing Systems Quality Assurance	-	-	0.000	-	-	-	-	-	-	-	-	0.025	-	-	-	-	-	0.025
2.4) X1900 - Landing System Installs	-	-	0.000	-	-	-	-	-	-	-	-	0.201	-	-	-	-	-	0.201
<i>Subtotal: Support - Other Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	-	-	-	<i>1.197</i>	-	-	-	-	-	<i>1.197</i>
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	2.991	-	-	-	-	-	2.991

Footnotes:

UNCLASSIFIED

Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Item Number / Title [DODIC]: 3 / Landing Systems
ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:	
⁽⁶⁾ X1042: Inventory objective is 85. 69 procurements and 65 installs were funded prior to FY2017 and are reflected on BLI 2846.		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 1 / AN/TPN-31A ATNAVICs ASR Range Extension (MJ455)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	4.069	-	4.069	2.402	2.397	-	-	-	8.868
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	4.069	-	4.069	2.402	2.397	-	-	-	8.868
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	4.069	-	4.069	2.402	2.397	-	-	-	8.868
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Air Traffic Navigation Integration and Coordination System (ATNAVICs) Air Surveillance Radar (ASR) Range Extension is funded to meet requirements identified in the Air Traffic Control (ATC) Initial Capabilities Document, Marine Requirements Oversight Committee Decision Memorandum 75-7007, Marine Aviation Command and Control Operational Advisory Group and Headquarters Marine Corps APX-25 Requirement Clarification letter dated 05 Jan 2010. The gaps identified require sustainment of legacy sensor capability until such time as ATNAVICs PrePlanned Product Improvement initiatives enhance system capability to support main air base traffic density and airspace. Additionally, the positive control enabled by increased ASR range reduces separation enabling increased sortie rates. The End Item Kits for the ATNAVICs ASR Range Extension that are being procured consist of: ASR transmitter, environmental control unit/power generator, Radio Frequency transmission line, ASR receiver/exciter and signal data processors and required software code modifications to system Lowest Repairable Units.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2815.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)

Models of Systems Affected: MATCALs	Modification Type: Modification	Related RDT&E PEs: 0604504N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>												
B Kits												
Non-Recurring												
1.1.1) EQUIPMENT - NonOrganic ⁽⁷⁾	- / -	- / -	- / -	2 / 2.400	- / -	2 / 2.400	1 / 1.200	1 / 1.200	- / -	- / -	- / -	4 / 4.800
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / 2.400	- / -	- / 2.400	- / 1.200	- / 1.200	- / -	- / -	- / -	- / 4.800
<i>Subtotal: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>	- / -	- / -	- / -	2 / 2.400	- / -	2 / 2.400	1 / 1.200	1 / 1.200	- / -	- / -	- / -	4 / 4.800
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.400	- / -	- / 2.400	- / 1.200	- / 1.200	- / -	- / -	- / -	- / 4.800
Support (All Modification Items)												
2.1) Integrated Logistics Support	- / 0.000	- / -	- / -	- / 0.117	- / -	- / 0.117	- / 0.138	- / 0.138	- / -	- / -	- / -	- / 0.393
2.2) Production Engineering	- / 0.000	- / -	- / -	- / 0.560	- / -	- / 0.560	- / 0.564	- / 0.559	- / -	- / -	- / -	- / 1.683
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.677	- / -	- / 0.677	- / 0.702	- / 0.697	- / -	- / -	- / -	- / 2.076
Installation												
<i>Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)</i>	- / 0.000	- / -	- / -	- / 0.992	- / -	- / 0.992	- / 0.500	- / 0.500	- / -	- / -	- / -	- / 1.992
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.992	- / -	- / 0.992	- / 0.500	- / 0.500	- / -	- / -	- / -	- / 1.992
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	4.069	-	4.069	2.402	2.397	-	-	-	8.868

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 1 / AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)

Modification Item 1 of 1: AN/TPN-31A ATNAVICS ASR Range Extension (MJ455)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Jun 2017				

Installation Information

Method of Implementation: AIT:: Installation Name: EQUIPMENT

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	2 / 0.992	- / -	2 / 0.992	- / -	- / -	- / -	- / -	- / -	2 / 0.992
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.500	- / -	- / -	- / -	- / -	1 / 0.500
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.500	- / -	- / -	- / -	1 / 0.500
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 0.992	- / -	2 / 0.992	1 / 0.500	1 / 0.500	- / -	- / -	- / -	4 / 1.992

Installation Schedule

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

Footnotes:
⁽⁷⁾ The ASR Range Extension is in response to the HQMC APX-25 Requirement Clarification letter dated 05 Jan 2010. Inventory objective is 15. 11 procurements and 11 installs are funded under BLI 2815.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment			Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)					

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	1.687	-	1.687	-	-	-	-	-	1.687
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	1.687	-	1.687	-	-	-	-	-	1.687
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	1.687	-	1.687	-	-	-	-	-	1.687

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Optimized Organizational Maintenance Activity System is an automated management information system that provides Navy and Marine Corps aviation organizational maintenance units with timely and accurate information to aid managers in their daily management of assigned aircraft and equipment.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2815.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)			
Models of Systems Affected: NAS/MCAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>													
B Kits													
Recurring													
1.1.1) Equipment - NonOrganic ⁽⁸⁾	- / -	- / -	10 / -	4 / 0.639	- / -	4 / 0.639	- / -	- / -	- / -	- / -	- / -	14 / 0.639	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 0.639	- / -	- / 0.639	- / -	- / -	- / -	- / -	- / -	- / 0.639	
<i>Subtotal: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>	- / -	- / -	10 / -	4 / 0.639	- / -	4 / 0.639	- / -	- / -	- / -	- / -	- / -	14 / 0.639	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 0.639	- / -	- / 0.639	- / -	- / -	- / -	- / -	- / -	- / 0.639	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.242	- / -	- / 0.242	- / -	- / -	- / -	- / -	- / -	- / 0.242	
2.2) Production Engineering	- / -	- / -	- / -	- / 0.374	- / -	- / 0.374	- / -	- / -	- / -	- / -	- / -	- / 0.374	
2.3) Acceptance Testing	- / -	- / -	- / -	- / 0.061	- / -	- / 0.061	- / -	- / -	- / -	- / -	- / -	- / 0.061	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.677	- / -	- / 0.677	- / -	- / -	- / -	- / -	- / -	- / 0.677	
Installation													
<i>Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)</i>	- / 0.000	- / -	- / -	- / 0.371	- / -	- / 0.371	- / -	- / -	- / -	- / -	- / -	- / 0.371	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.371	- / -	- / 0.371	- / -	- / -	- / -	- / -	- / -	- / 0.371	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	1.687	-	1.687	-	-	-	-	-	1.687	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 2 / Optimized Organizational Maintenance Activity (OOMA) (MJ460)

Modification Item 1 of 1: Optimized Organizational Maintenance Activity (OOMA) (MJ460)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Installation Team:: Installation Name: Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	10 / 0.265	- / -	10 / 0.265	- / -	- / -	- / -	- / -	- / -	10 / 0.265
FY 2017	- / -	- / -	- / -	4 / 0.106	- / -	4 / 0.106	- / -	- / -	- / -	- / -	- / -	4 / 0.106
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	14 / 0.371	- / -	14 / 0.371	- / -	- / -	- / -	- / -	- / -	14 / 0.371

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	-	-	5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14
Out	-	-	-	-	-	-	-	-	-	-	-	5	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14

Footnotes:

⁽⁸⁾ PMW-150 is the government agency that owns and delivers Optimized Organizational Maintenance Activity (OOMA). Inventory objective is 24. 20 procurements and 10 installs are funded under BLI 2815.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 3 / MJ465 AMTAC
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	4.300	-	4.300	4.400	-	-	-	-	8.700
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	4.300	-	4.300	4.400	-	-	-	-	8.700
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	4.300	-	4.300	4.400	-	-	-	-	8.700

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/TRN-47(V)2 Airfield Mobile TACAN (AMTAC) is a new start in FY 2017. It is a one for one replacement for the aging/obsolete AN/TRN-44A TACAN. The AN/TRN-47(V)2 AMTAC is a High Mobility Multipurpose Wheeled Vehicle (HMMWV) transportable, rapid set-up/tear-down, dual channel navigation aid, which provides TACAN-equipped aircraft with range, bearing, and non-precision approach capability.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 3 / MJ465 AMTAC			
Models of Systems Affected: MATCAL5				Modification Type: Modification				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: MJ465 AMTAC</i>													
B Kits													
Recurring													
2.1.1) Equipment - NonOrganic	- / -	- / -	- / -	3 / 2.999	- / -	3 / 2.999	3 / 3.089	- / -	- / -	- / -	- / -	6 / 6.088	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 2.999	- / -	- / 2.999	- / 3.089	- / -	- / -	- / -	- / -	- / 6.088	
<i>Subtotal: MJ465 AMTAC</i>	- / -	- / -	- / -	3 / 2.999	- / -	3 / 2.999	3 / 3.089	- / -	- / -	- / -	- / -	6 / 6.088	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.999	- / -	- / 2.999	- / 3.089	- / -	- / -	- / -	- / -	- / 6.088	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.330	- / -	- / 0.330	- / 0.314	- / -	- / -	- / -	- / -	- / 0.644	
3.2) Production Engineering	- / -	- / -	- / -	- / 0.556	- / -	- / 0.556	- / 0.567	- / -	- / -	- / -	- / -	- / 1.123	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.886	- / -	- / 0.886	- / 0.881	- / -	- / -	- / -	- / -	- / 1.767	
Installation													
<i>Modification Item 1 of 1: MJ465 AMTAC</i>	- / 0.000	- / -	- / -	- / 0.415	- / -	- / 0.415	- / 0.430	- / -	- / -	- / -	- / -	- / 0.845	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.415	- / -	- / 0.415	- / 0.430	- / -	- / -	- / -	- / -	- / 0.845	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	4.300	-	4.300	4.400	-	-	-	-	8.700	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 3 / MJ465 AMTAC

Modification Item 1 of 1: MJ465 AMTAC

Manufacturer Information

Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 8			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Nov 2016				
Delivery Dates			Jul 2017				

Installation Information

Method of Implementation: Installation Team:: Installation Name: Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	3 / 0.415	- / -	3 / 0.415	- / -	- / -	- / -	- / -	- / -	3 / 0.415
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.430	- / -	- / -	- / -	- / -	3 / 0.430
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	3 / 0.415	- / -	3 / 0.415	3 / 0.430	- / -	- / -	- / -	- / -	6 / 0.845

Installation Schedule

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 4 / CB010 - DoD Advanced Automation System (DAAS)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	4.841	-	4.841	4.128	1.735	0.453	0.400	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	4.841	-	4.841	4.128	1.735	0.453	0.400	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	4.841	-	4.841	4.128	1.735	0.453	0.400	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The DoD Advanced Automation System (DAAS) is being developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The systems are installed in Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements. DAAS provides for processors and displays for tower and approach controls. Inventory objective of 47.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment						Modification Number / Title: 4 / CB010 - DoD Advanced Automation System (DAAS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB010 - DoD Advanced Automation System (DAAS)													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽⁹⁾	- / -	- / -	1 / -	2 / 1.816	- / -	2 / 1.816	1 / 0.935	- / -	- / -	- / -	- / -	4 / 2.751	
2.1.2) ECP/OCIR - Organic ⁽¹⁰⁾	- / -	- / -	- / -	- / 0.500	- / -	- / 0.500	- / 0.526	- / 0.452	- / 0.453	- / 0.400	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 2.316	- / -	- / 2.316	- / 1.461	- / 0.452	- / 0.453	- / 0.400	Continuing	Continuing	
<i>Subtotal: CB010 - DoD Advanced Automation System (DAAS)</i>	- / -	- / -	1 / -	2 / 2.316	- / -	2 / 2.316	1 / 1.461	- / 0.452	- / 0.453	- / 0.400	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.316	- / -	- / 2.316	- / 1.461	- / 0.452	- / 0.453	- / 0.400	Continuing	Continuing	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.102	- / -	- / 0.102	- / 0.097	- / 0.050	- / -	- / -	- / -	- / 0.249	
3.2) Production Engineering	- / -	- / -	- / -	- / 0.611	- / -	- / 0.611	- / 0.480	- / 0.375	- / -	- / -	- / -	- / 1.466	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.713	- / -	- / 0.713	- / 0.577	- / 0.425	- / -	- / -	- / -	- / 1.715	
Installation													
<i>Modification Item 1 of 1:</i> CB010 - DoD Advanced Automation System (DAAS)	- / 0.000	- / -	- / -	- / 1.812	- / -	- / 1.812	- / 2.090	- / 0.858	- / -	- / -	- / -	- / 4.760	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 1.812	- / -	- / 1.812	- / 2.090	- / 0.858	- / -	- / -	- / -	- / 4.760	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	4.841	-	4.841	4.128	1.735	0.453	0.400	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 4 / CB010 - DoD Advanced Automation System (DAAS)

Modification Item 1 of 1: CB010 - DoD Advanced Automation System (DAAS)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017				
Delivery Dates			Mar 2018				

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 1.043	- / -	1 / 1.043	- / -	- / -	- / -	- / -	- / -	1 / 1.043
FY 2017	- / -	- / -	- / -	- / 0.769	- / -	- / 0.769	2 / 1.490	- / -	- / -	- / -	- / -	2 / 2.259
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.600	1 / 0.858	- / -	- / -	- / -	1 / 1.458
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 1.812	- / -	1 / 1.812	2 / 2.090	1 / 0.858	- / -	- / -	- / -	4 / 4.760

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4

Footnotes:
⁽⁹⁾ Inventory Objective is 47. 44 procurements and 43 installs were funded prior to FY2017 and are reflected on BLI 2840. DAAS - AP costs for Installation occur 1 year prior to actual install and show as quantity zero. FY2017 installations are for FY2016 procurements which are reflected on BLI 2840.
⁽¹⁰⁾ ECP costs are based on site unique software configurations through the rest of the FYDP.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 5 / CB030 Digital Airport Surveillance Radar (DASR)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	0.400	-	0.400	0.400	0.350	0.376	0.300	-	1.826
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	0.400	-	0.400	0.400	0.350	0.376	0.300	-	1.826
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	0.400	-	0.400	0.400	0.350	0.376	0.300	-	1.826
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The DASR was developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The DASR is being installed in Navy ATC facilities to replace aging, obsolete approach control radars and comply with joint DoD/FAA modernization program agreements. Inventory objective of 29 DASR. 29 were procured and installed prior to FY2017 were funded under BLI 2840.

The FAA DASR technical refreshment has not progressed as planned and has been reorganized into multiple Engineering Change Proposals (ECPs) to mitigate obsolescence effective FY2017. An ECP line has been added to the budget starting in FY2017 to address these upgrades.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 5 / CB030 Digital Airport Surveillance Radar (DASR)

Models of Systems Affected: NAS	Modification Type: Added Capability	Related RDT&E PEs: 0604504N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> CB030 Digital Airport Surveillance Radar (DASR)												
B Kits												
Recurring												
1.1.2) ECP/OCIR - Organic	- / -	- / -	- / -	- / 0.400	- / -	- / 0.400	- / 0.400	- / 0.350	- / 0.376	- / 0.300	- / -	- / 1.826
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 0.400	- / -	- / 0.400	- / 0.400	- / 0.350	- / 0.376	- / 0.300	- / -	- / 1.826
<i>Subtotal: CB030 Digital Airport Surveillance Radar (DASR)</i>	- / -	- / -	- / -	- / 0.400	- / -	- / 0.400	- / 0.400	- / 0.350	- / 0.376	- / 0.300	- / -	- / 1.826
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 0.400	- / -	- / 0.400	- / 0.400	- / 0.350	- / 0.376	- / 0.300	- / -	- / 1.826
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	0.400	-	0.400	0.400	0.350	0.376	0.300	-	1.826

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 5 / CB030 Digital Airport Surveillance Radar (DASR)

Modification Item 1 of 1: CB030 Digital Airport Surveillance Radar (DASR)

Manufacturer Information

Manufacturer Name: MOOG				Manufacturer Location: Salt Lake City, UT			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Manufacturer Name: Raytheon				Manufacturer Location: Marlborough, MA			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 6 / CB040 Tower Automation System (TAS)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	0.200	-	0.200	0.200	0.180	0.504	0.373	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	0.200	-	0.200	0.200	0.180	0.504	0.373	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	0.200	-	0.200	0.200	0.180	0.504	0.373	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TAS was developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The TAS is being installed in Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements. Inventory objective of 57 TAS.

This effort includes Engineering Change Proposal (ECP) efforts directly related to the TAS Tech Refresh efforts detailed in cost element CB070 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications alert indicator. The nature of that consolidation creates an interdependency with CB070; which addresses severe obsolescence issues that render the current workstation configuration unsupported. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 6 / CB040 Tower Automation System (TAS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB040 Tower Automation System (TAS)													
B Kits													
Recurring													
1.1.1) ECP/OCIR - Organic ⁽¹¹⁾	- / -	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.180	- / 0.504	- / 0.373	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.180	- / 0.504	- / 0.373	Continuing	Continuing	
<i>Subtotal: CB040 Tower Automation System (TAS)</i>	- / -	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.180	- / 0.504	- / 0.373	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 0.200	- / 0.180	- / 0.504	- / 0.373	Continuing	Continuing	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	0.200	-	0.200	0.200	0.180	0.504	0.373	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 6 / CB040 Tower Automation System (TAS)

Modification Item 1 of 1: CB040 Tower Automation System (TAS)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (<i>in Months</i>): 6	Production Leadtime (<i>in Months</i>): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Footnotes:

⁽¹¹⁾ Support costs are included in the ECP/OCIR lines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 7 / CB050 STARS TECH Refresh Upgrade				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	11.360	-	11.360	14.219	16.905	16.423	5.595	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	11.360	-	11.360	14.219	16.905	16.423	5.595	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	11.360	-	11.360	14.219	16.905	16.423	5.595	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Standard Terminal Automation Replacement System (STARS) is a joint (DoD) and Department of Transportation Federal Aviation Administration (FAA) program to modernize terminal air traffic control automation systems. The STARS contract was awarded by the FAA on September 16, 1996, and ends September 30, 2017. The FAA anticipates the award of a contract for system maintenance, system technical refresh, and system enhancements through fiscal year 2019. The FAA began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information in place of ground-based radar. The DoD version of STARS DoD Advanced Automation System (DAAS) must be upgraded to meet this requirement. Inventory objective is 48.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment						Modification Number / Title: 7 / CB050 STARS TECH Refresh Upgrade			
Models of Systems Affected: NAS				Modification Type: AIT				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB050 STARS TECH Refresh Upgrade													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽¹²⁾	- / -	- / -	4 / -	7 / 9.385	- / -	7 / 9.385	8 / 11.081	10 / 13.532	9 / 12.418	1 / 1.426	- / -	39 / 47.842	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 9.385	- / -	- / 9.385	- / 11.081	- / 13.532	- / 12.418	- / 1.426	- / -	- / 47.842	
<i>Subtotal: CB050 STARS TECH Refresh Upgrade</i>	- / -	- / -	4 / -	7 / 9.385	- / -	7 / 9.385	8 / 11.081	10 / 13.532	9 / 12.418	1 / 1.426	- / -	39 / 47.842	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 9.385	- / -	- / 9.385	- / 11.081	- / 13.532	- / 12.418	- / 1.426	- / -	- / 47.842	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.150	- / -	- / 0.150	- / 0.150	- / 0.150	- / 0.160	- / 0.112	Continuing	Continuing	
3.2) Production Engineering	- / -	- / -	- / -	- / 0.451	- / -	- / 0.451	- / 0.536	- / 0.500	- / 0.550	- / 0.350	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.601	- / -	- / 0.601	- / 0.686	- / 0.650	- / 0.710	- / 0.462	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> CB050 STARS TECH Refresh Upgrade	- / 0.000	- / -	- / -	- / 1.374	- / -	- / 1.374	- / 2.452	- / 2.723	- / 3.295	- / 3.707	- / 0.390	- / 13.941	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 1.374	- / -	- / 1.374	- / 2.452	- / 2.723	- / 3.295	- / 3.707	- / 0.390	- / 13.941	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	11.360	-	11.360	14.219	16.905	16.423	5.595	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 7 / CB050 STARS TECH Refresh Upgrade

Modification Item 1 of 1: CB050 STARS TECH Refresh Upgrade

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017				
Delivery Dates			Mar 2018				

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	4 / 1.374	- / -	4 / 1.374	- / -	- / -	- / -	- / -	- / -	4 / 1.374
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.452	- / -	- / -	- / -	- / -	7 / 2.452
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 2.723	- / -	- / -	- / -	8 / 2.723
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 3.295	- / -	- / -	10 / 3.295
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 3.707	- / -	9 / 3.707
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.390	1 / 0.390
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	4 / 1.374	- / -	4 / 1.374	7 / 2.452	8 / 2.723	10 / 3.295	9 / 3.707	1 / 0.390	39 / 13.941

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	2	2	-	-	4	3	-	-	3	3	2	-	3	4	3	-	3	3	3	1	39
Out	-	-	-	-	-	-	-	-	-	-	2	2	-	-	4	3	-	-	3	3	2	-	3	4	3	-	3	3	3	1	39

Footnotes:

(12) (1) Inventory objective is 48. 13 procurements and 9 installations were funded prior to FY2017 and are reflected on BLI 2840. (2) Support cost fluctuations are due to the tailored to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements. (3) Installation costs fluctuate based on location of installation and the tailoring of systems to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 8 / CB070 TAS Tech Refresh
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	4.055	-	4.055	2.628	3.342	2.681	0.655	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	4.055	-	4.055	2.628	3.342	2.681	0.655	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	4.055	-	4.055	2.628	3.342	2.681	0.655	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Tower Automation Systems have been fielded since 2001 and are experiencing obsolescence and Information Assurance (IA) issues. These upgrades will address these obsolescence and IA issues as well as maintain compatibility with the FAA's Next Generation (NextGen) Air Transportation System initiatives. Additionally, these upgrades will enhance system performance to provide Common Access Card utilization, multi-source weather reporting and Tactical Air Control Navigation (TACAN) control. In order to achieve the modernization of the National Air Space (NAS) envisioned by NextGen, the FAA is developing a Terminal Flight Data Management (TFDM) platform that integrates flight data systems and decision support tools. The TFDM program is an integrated approach to maximize the efficient collection, distribution, and update of data and improve access to information necessary for the safe and efficient control of air traffic. The TAS will be upgraded to be consistent with the FAA TFDM.

This effort includes TAS Tech Refresh efforts directly related to the Engineering Change Proposal (ECP) efforts detailed in cost element CB040 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications (VISCOM) alert indicator. The nature of that consolidation creates an interdependency with CB040; which addresses severe obsolescence issues that render the current workstation configuration unsupported. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment						Modification Number / Title: 8 / CB070 TAS Tech Refresh			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB070 TAS Tech Refresh													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽¹³⁾	- / -	- / -	16 / -	10 / 1.594	- / -	10 / 1.594	6 / 0.936	12 / 1.908	6 / 0.936	- / -	- / -	50 / 5.374	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.594	- / -	- / 1.594	- / 0.936	- / 1.908	- / 0.936	- / -	- / -	- / 5.374	
<i>Subtotal: CB070 TAS Tech Refresh</i>	- / -	- / -	16 / -	10 / 1.594	- / -	10 / 1.594	6 / 0.936	12 / 1.908	6 / 0.936	- / -	- / -	50 / 5.374	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 1.594	- / -	- / 1.594	- / 0.936	- / 1.908	- / 0.936	- / -	- / -	- / 5.374	
Support (All Modification Items)													
3.1) Integrated Logistics Support ⁽¹⁴⁾	- / -	- / -	- / -	- / 0.149	- / -	- / 0.149	- / 0.122	- / 0.105	- / 0.105	- / 0.106	Continuing	Continuing	
3.2) Production Engineering	- / -	- / -	- / -	- / 0.373	- / -	- / 0.373	- / 0.370	- / 0.204	- / 0.200	- / 0.180	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.522	- / -	- / 0.522	- / 0.492	- / 0.309	- / 0.305	- / 0.286	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> CB070 TAS Tech Refresh	- / 0.000	- / -	- / -	- / 1.939	- / -	- / 1.939	- / 1.200	- / 1.125	- / 1.440	- / 0.369	- / -	- / 6.073	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 1.939	- / -	- / 1.939	- / 1.200	- / 1.125	- / 1.440	- / 0.369	- / -	- / 6.073	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	4.055	-	4.055	2.628	3.342	2.681	0.655	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 8 / CB070 TAS Tech Refresh

Modification Item 1 of 1: CB070 TAS Tech Refresh

Manufacturer Information

Manufacturer Name: Pen-Tech	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017				
Delivery Dates			Mar 2018				

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	16 / 1.939	- / -	16 / 1.939	- / -	- / -	- / -	- / -	- / -	16 / 1.939
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.200	- / -	- / -	- / -	- / -	10 / 1.200
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.125	- / -	- / -	- / -	6 / 1.125
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.440	- / -	- / -	12 / 1.440
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.369	- / -	6 / 0.369
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	16 / 1.939	- / -	16 / 1.939	10 / 1.200	6 / 1.125	12 / 1.440	6 / 0.369	- / -	50 / 6.073

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	-	8	8	-	-	5	5	-	-	3	3	-	-	6	6	-	-	4	2	-	-	-	50
Out	-	-	-	-	-	-	-	-	-	-	-	8	8	-	-	5	5	-	-	3	3	-	-	6	6	-	-	4	2	-	-	50

Footnotes:

(13) Inventory objective is 57. 23 procurements and 7 installations were funded prior to FY2017 and are funded on BLI 2840. Installation of FY2016 End Item procurements (qty 16) will be funded with FY2017 funding.

(14) Support cost fluctuations are due to the tailored to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016	
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment				Modification Number / Title: 9 / CB080 NAS Voice System (NVS)			

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	6.350	-	6.350	7.465	6.542	9.118	22.858	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	6.350	-	6.350	7.465	6.542	9.118	22.858	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	6.350	-	6.350	7.465	6.542	9.118	22.858	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Federal Aviation Administration (FAA) NAS Voice System(NVS) was a new start in FY 2015 and a forward-looking program to replace national airspace system (NAS) voice switches and radios with a new technology system capable of supporting future requirements for the Next Generation Air Transportation System (NextGen). Many of these switches are experiencing increasing obsolescence and failures and are in need of replacement. They are not capable of supporting flexible reallocation of access to communications resources, and lack security needed for a network-based communications infrastructure, which is a key concept in modernization of the NAS. The NVS program will provide a key transitional element in the air traffic control voice communications infrastructure as it moves toward realizing the FAAs NextGen vision and a more operationally efficient and economic NAS.

Radios: There are 75 sites which will receive a total of 4,498 radios. The sites to receive radios include Fleet Area Control Surveillance Facilities (FACSFACs) remote sites at Naval and Marine Corps Air Stations. The number of radios per site varies due to operational requirements and the number of aircraft serviced.

Voice Switches: There are two specific types of Voice Switches being procured: Operational Communication System (OCS) and Emergency Control System (ECS): 56 OCS Voice Switches, 42 ECS Voice Switches.

42 Sites will receive both an OCS Voice Switch and an ECS Voice Switch, 14 sites will receive only an OCS voice switch. While FACSFAC remote sites are equipped with radios, they are not equipped with Voice Switches.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2840.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment						Modification Number / Title: 9 / CB080 NAS Voice System (NVS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB080 NAS Voice System (NVS)													
B Kits													
Recurring													
2.1.2) End Item: Radios - NonOrganic ⁽¹⁵⁾	- / -	- / -	334 / -	592 / 5.173	- / -	592 / 5.173	618 / 5.509	497 / 4.519	574 / 5.314	669 / 6.689	941 / 9.409	4,225 / 36.613	
2.1.3) End Item: OCS Voice Switch - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.557	7 / 10.920	48 / 77.784	56 / 90.261	
2.1.4) End Item: ECS Voice Switch - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.400	7 / 2.800	34 / 17.442	42 / 20.642	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 5.173	- / -	- / 5.173	- / 5.509	- / 4.519	- / 7.271	- / 20.409	- / 104.635	- / 147.516	
<i>Subtotal: CB080 NAS Voice System (NVS)</i>	- / -	- / -	334 / -	592 / 5.173	- / -	592 / 5.173	618 / 5.509	497 / 4.519	576 / 7.271	683 / 20.409	1,023 / 104.635	4,323 / 147.516	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 5.173	- / -	- / 5.173	- / 5.509	- / 4.519	- / 7.271	- / 20.409	- / 104.635	- / 147.516	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.180	- / -	- / 0.180	- / 0.220	- / 0.200	- / 0.260	- / 0.200	Continuing	Continuing	
3.2) Production Engineering	- / -	- / -	- / -	- / 0.310	- / -	- / 0.310	- / 0.400	- / 0.400	- / 0.420	- / 0.400	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.490	- / -	- / 0.490	- / 0.620	- / 0.600	- / 0.680	- / 0.600	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> CB080 NAS Voice System (NVS)	- / 0.000	- / -	- / -	- / 0.687	- / -	- / 0.687	- / 1.336	- / 1.423	- / 1.167	- / 1.849	- / 28.198	- / 34.660	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.687	- / -	- / 0.687	- / 1.336	- / 1.423	- / 1.167	- / 1.849	- / 28.198	- / 34.660	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	6.350	-	6.350	7.465	6.542	9.118	22.858	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 9 / CB080 NAS Voice System (NVS)

Modification Item 1 of 1: CB080 NAS Voice System (NVS)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Mar 2017				
Delivery Dates			Mar 2018				

Installation Information

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: Radios

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	334 / 0.687	- / -	334 / 0.687	- / -	- / -	- / -	- / -	- / -	334 / 0.687
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	592 / 1.336	- / -	- / -	- / -	- / -	592 / 1.336
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	618 / 1.423	- / -	- / -	- / -	618 / 1.423
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	497 / 1.167	- / -	- / -	497 / 1.167
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	574 / 1.378	- / -	574 / 1.378
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	669 / 1.606	669 / 1.606
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	941 / 2.259	941 / 2.259
Total	- / -	- / -	- / -	334 / 0.687	- / -	334 / 0.687	592 / 1.336	618 / 1.423	497 / 1.167	574 / 1.378	1,610 / 3.865	4,225 / 9.856

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	112	111	111	-	198	197	197	-	206	206	206	-	167	166	164	-	192	192	190	1,610	4,225
Out	-	-	-	-	-	-	-	-	-	-	112	111	111	-	198	197	197	-	206	206	206	-	167	166	164	-	192	192	190	1,610	4,225

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: OCS Voice Switch

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 9 / CB080 NAS Voice System (NVS)

Modification Item 1 of 1: CB080 NAS Voice System (NVS)

Installation Information

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: OCS Voice Switch

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.287	- / -	1 / 0.287
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.049	7 / 2.049
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 14.338	48 / 14.338
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.287	55 / 16.387	56 / 16.674

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	55	56	
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	55	56	

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: ECS Voice Switch

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.184	- / -	1 / 0.184
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 1.313	7 / 1.313
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 6.633	34 / 6.633
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.184	41 / 7.946	42 / 8.130

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 9 / CB080 NAS Voice System (NVS)
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Modification Item 1 of 1: CB080 NAS Voice System (NVS)

Installation Information

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: ECS Voice Switch

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	41	42
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	41	42	

Footnotes:

⁽¹⁵⁾ End Item costs are based on current FAA contract pricing. Inventory objective is 4,498. 607 procurements and 273 installations were funded prior to FY2017 and are reflected on BLI 2840. Installation of FY2016 End Item procurements (qty 334) will be funded with FY2017 funding.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment			Modification Number / Title: 10 / X1036 AN/FPN-63 PAR TECH REFRESH				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	10.703	-	10.703	11.430	11.992	11.746	12.073	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	10.703	-	10.703	11.430	11.992	11.746	12.073	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	10.703	-	10.703	11.430	11.992	11.746	12.073	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This Engineering Change Proposal (ECP) constitutes Block 2 and 3 of the Service Life Extension Program for the AN/FPN-63. It will extend the service life to at least 2025 by replacing obsolete receiver/transmitter assemblies, radar video processors, and controller displays with state-of-the-art assemblies/displays. This upgrade will also correct numerous human factors issues. This ECP will be accomplished on 36 deployed AN/FPN-63 Precision Approach Radar (PAR) Systems.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 10 / X1036 AN/FPN-63 PAR TECH REFRESH			
Models of Systems Affected: Shore Sites				Modification Type: Reliability				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: X1036 AN/FPN-63 PAR TECH REFRESH</i>													
B Kits													
Recurring													
1.1.1) X1036 - PAR Tech Refresh - NonOrganic ⁽¹⁶⁾	1 / 0.000	1 / -	1 / -	2 / 8.067	- / -	2 / 8.067	2 / 8.310	2 / 8.558	2 / 8.816	2 / 9.080	3 / 13.620	16 / 56.451	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 8.067	- / -	- / 8.067	- / 8.310	- / 8.558	- / 8.816	- / 9.080	- / 13.620	- / 56.451	
<i>Subtotal: X1036 AN/FPN-63 PAR TECH REFRESH</i>	1 / 0.000	1 / -	1 / -	2 / 8.067	- / -	2 / 8.067	2 / 8.310	2 / 8.558	2 / 8.816	2 / 9.080	3 / 13.620	16 / 56.451	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 8.067	- / -	- / 8.067	- / 8.310	- / 8.558	- / 8.816	- / 9.080	- / 13.620	- / 56.451	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / -	- / -	- / -	- / 0.437	- / -	- / 0.437	- / 0.424	- / 0.411	- / 0.424	- / 0.436	Continuing	Continuing	
2.2) Production Engineering	- / -	- / -	- / -	- / 1.360	- / -	- / 1.360	- / 1.000	- / 1.217	- / 0.703	- / 0.700	Continuing	Continuing	
2.3) Quality Assurance	- / -	- / -	- / -	- / 0.030	- / -	- / 0.030	- / 0.030	- / 0.030	- / 0.035	- / 0.035	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 1.827	- / -	- / 1.827	- / 1.454	- / 1.658	- / 1.162	- / 1.171	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: X1036 AN/FPN-63 PAR TECH REFRESH</i>	- / 0.000	- / -	- / -	- / 0.809	- / -	- / 0.809	- / 1.666	- / 1.776	- / 1.768	- / 1.822	- / 4.489	- / 12.330	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.809	- / -	- / 0.809	- / 1.666	- / 1.776	- / 1.768	- / 1.822	- / 4.489	- / 12.330	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	10.703	-	10.703	11.430	11.992	11.746	12.073	Continuing	Continuing	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 10 / X1036 AN/FPN-63 PAR TECH REFRESH

Modification Item 1 of 1: X1036 AN/FPN-63 PAR TECH REFRESH

Manufacturer Information

Manufacturer Name: MOOG	Manufacturer Location: Salt Lake City, UT
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Jan 2018				

Installation Information

Method of Implementation: Alteration Installation Team:: Installation Name: X1036 - PAR Tech Refresh

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	1 / 0.270	- / 0.000	1 / 0.270	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.270
FY 2015	- / -	- / -	- / -	1 / 0.270	- / -	1 / 0.270	- / -	- / -	- / -	- / -	- / -	1 / 0.270
FY 2016	- / -	- / -	- / -	1 / 0.269	- / -	1 / 0.269	- / -	- / -	- / -	- / -	- / -	1 / 0.269
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.666	- / -	- / -	- / -	- / -	2 / 1.666
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.776	- / -	- / -	- / -	2 / 1.776
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.768	- / -	- / -	2 / 1.768
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.822	- / -	2 / 1.822
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.872	2 / 1.872
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.617	3 / 2.617
Total	- / -	- / -	- / -	3 / 0.809	- / -	3 / 0.809	2 / 1.666	2 / 1.776	2 / 1.768	2 / 1.822	5 / 4.489	16 / 12.330

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	2	1	-	-	1	1	-	-	1	1	-	-	1	1	-	1	1	-	-	5	16
Out	-	-	-	-	-	-	-	-	-	-	2	1	-	-	1	1	-	-	1	1	-	-	1	1	-	1	1	-	-	5	16

Footnotes:
⁽¹⁶⁾ Inventory objective is 16. 3 procurements and 0 installations were funded prior to FY2017 and are funded on BLI 2846. Installation of FY2014-16 procurements (qty 3) will be funded with FY2017 funding.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 11 / X1037 PAR ILS Upgrade
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	5.385	-	5.385	5.235	6.276	7.414	7.719	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	5.385	-	5.385	5.235	6.276	7.414	7.719	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	5.385	-	5.385	5.235	6.276	7.414	7.719	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The precision Approach Radar (PAR) is an aging system with multiple obsolete parts, and requires updating to ensure the system stays relevant through the year 2030 to bridge the gap in converting Naval aircraft to be Instrument Landing System (ILS) capable, a change precipitated by schedule changes to the Joint Precision Approach and Landing Systems (JPALS) program. Due to obsolescence, the AN/FPN-63 needs additional spare parts to meet the needs of the Navy. Currently, parts can only be obtained through cannabilization, and updated PARs are required to meet the needs of Naval Aviation until the ILS conversion is complete. ILS will provide an unmanned Precision Approach capability which will greatly reduce associated manpower cost currently required.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 11 / X1037 PAR ILS Upgrade			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: X1037 PAR ILS Upgrade</i>													
B Kits													
Recurring													
1.1.1) PAR ILS Upgrades - NonOrganic ⁽¹⁷⁾	- / -	- / -	2 / -	4 / 2.660	- / -	4 / 2.660	3 / 2.013	5 / 3.455	6 / 4.272	6 / 4.398	5 / 3.775	31 / 20.573	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 2.660	- / -	- / 2.660	- / 2.013	- / 3.455	- / 4.272	- / 4.398	- / 3.775	- / 20.573	
<i>Subtotal: X1037 PAR ILS Upgrade</i>	- / -	- / -	2 / -	4 / 2.660	- / -	4 / 2.660	3 / 2.013	5 / 3.455	6 / 4.272	6 / 4.398	5 / 3.775	31 / 20.573	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.660	- / -	- / 2.660	- / 2.013	- / 3.455	- / 4.272	- / 4.398	- / 3.775	- / 20.573	
Support (All Modification Items)													
2.1) Logistics	- / -	- / -	- / -	- / 0.559	- / -	- / 0.559	- / 0.542	- / 0.526	- / 0.510	- / 0.250	Continuing	Continuing	
2.2) Production Engineering	- / -	- / -	- / -	- / 1.308	- / -	- / 1.308	- / 0.951	- / 0.949	- / 0.348	- / 0.254	Continuing	Continuing	
2.4) Quality Assurance	- / -	- / -	- / -	- / 0.036	- / -	- / 0.036	- / 0.037	- / 0.038	- / 0.039	- / 0.041	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 1.903	- / -	- / 1.903	- / 1.530	- / 1.513	- / 0.897	- / 0.545	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: X1037 PAR ILS Upgrade</i>	- / 0.000	- / -	- / -	- / 0.822	- / -	- / 0.822	- / 1.692	- / 1.308	- / 2.245	- / 2.776	- / 6.844	- / 15.687	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.822	- / -	- / 0.822	- / 1.692	- / 1.308	- / 2.245	- / 2.776	- / 6.844	- / 15.687	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	5.385	-	5.385	5.235	6.276	7.414	7.719	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 11 / X1037 PAR ILS Upgrade

Modification Item 1 of 1: X1037 PAR ILS Upgrade

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Jan 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: PAR ILS Upgrades

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 0.822	- / -	2 / 0.822	- / -	- / -	- / -	- / -	- / -	2 / 0.822
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.692	- / -	- / -	- / -	- / -	4 / 1.692
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.308	- / -	- / -	- / -	3 / 1.308
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.245	- / -	- / -	5 / 2.245
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.776	- / -	6 / 2.776
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 3.734	6 / 3.734
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 3.110	5 / 3.110
Total	- / -	- / -	- / -	2 / 0.822	- / -	2 / 0.822	4 / 1.692	3 / 1.308	5 / 2.245	6 / 2.776	11 / 6.844	31 / 15.687

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	2	1	-	1	2	-	-	1	2	2	-	2	2	2	11	31
Out	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	2	1	-	1	2	-	-	1	2	2	-	2	2	2	11	31

Footnotes:

(17) Inventory objective is 31. 2 procurements and 0 installations were funded prior to FY2017 and are funded on BLI 2846. Installation of FY2016 End Item procurements (qty 2) will be funded with FY2017 funding.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 12 / X1043 TACAN Antenna Upgrade
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	7.893	-	7.893	8.218	10.986	10.649	10.572	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	7.893	-	7.893	8.218	10.986	10.649	10.572	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	7.893	-	7.893	8.218	10.986	10.649	10.572	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TACAN Antenna Upgrade program will provide shore installations with a new antenna for TACAN systems. Justification: TACAN is a dated systems with multiple obsolete parts. Modernization of the TACAN antenna is required to reduce maintenance and improve life span in order to meet needs of the Fleet, and provide a stand-alone recovery system in the wake of the JPALS program restructure.

Procurements, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2846.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment					Modification Number / Title: 12 / X1043 TACAN Antenna Upgrade			
Models of Systems Affected: Shore Sites				Modification Type: Modernization				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: X1043 TACAN Antenna Upgrade</i>													
B Kits													
Recurring													
1.1.1) TACAN Antenna Upgrade - NonOrganic ⁽¹⁸⁾	- / -	- / -	9 / -	11 / 2.532	- / -	11 / 2.532	24 / 5.690	24 / 6.211	24 / 6.037	24 / 6.218	149 / 43.019	265 / 69.707	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 2.532	- / -	- / 2.532	- / 5.690	- / 6.211	- / 6.037	- / 6.218	- / 43.019	- / 69.707	
<i>Subtotal: X1043 TACAN Antenna Upgrade</i>	- / -	- / -	9 / -	11 / 2.532	- / -	11 / 2.532	24 / 5.690	24 / 6.211	24 / 6.037	24 / 6.218	149 / 43.019	265 / 69.707	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.532	- / -	- / 2.532	- / 5.690	- / 6.211	- / 6.037	- / 6.218	- / 43.019	- / 69.707	
Support (All Modification Items)													
2.1) Logistics	- / -	- / -	- / -	- / 1.531	- / -	- / 1.531	- / 0.578	- / 0.561	- / 0.544	- / 0.526	Continuing	Continuing	
2.2) Production Engineering	- / -	- / -	- / -	- / 0.815	- / -	- / 0.815	- / 0.443	- / 0.919	- / 0.687	- / 0.346	Continuing	Continuing	
2.3) Quality Assurance	- / -	- / -	- / -	- / 0.073	- / -	- / 0.073	- / 0.064	- / 0.053	- / 0.042	- / 0.042	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 2.419	- / -	- / 2.419	- / 1.085	- / 1.533	- / 1.273	- / 0.914	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: X1043 TACAN Antenna Upgrade</i>	- / 0.000	- / -	- / -	- / 2.942	- / -	- / 2.942	- / 1.443	- / 3.242	- / 3.339	- / 3.440	- / 31.610	- / 46.016	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 2.942	- / -	- / 2.942	- / 1.443	- / 3.242	- / 3.339	- / 3.440	- / 31.610	- / 46.016	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	7.893	-	7.893	8.218	10.986	10.649	10.572	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2820 / Ashore ATC Equipment	Modification Number / Title: 12 / X1043 TACAN Antenna Upgrade

Modification Item 1 of 1: X1043 TACAN Antenna Upgrade

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Jan 2018				

Installation Information

Method of Implementation: AIT Installation:: Installation Name: TACAN Antenna Upgrade

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	9 / 2.942	- / -	9 / 2.942	- / -	- / -	- / -	- / -	- / -	9 / 2.942
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.443	- / -	- / -	- / -	- / -	11 / 1.443
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.242	- / -	- / -	- / -	24 / 3.242
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.339	- / -	- / -	24 / 3.339
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.440	- / -	24 / 3.440
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.558	24 / 3.558
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	149 / 28.052	149 / 28.052
Total	- / -	- / -	- / -	9 / 2.942	- / -	9 / 2.942	11 / 1.443	24 / 3.242	24 / 3.339	24 / 3.440	173 / 31.610	265 / 46.016

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	3	3	3	-	2	5	4	6	6	6	6	6	6	6	6	6	6	6	6	173	265
Out	-	-	-	-	-	-	-	-	-	-	3	3	3	-	2	5	4	6	6	6	6	6	6	6	6	6	6	6	6	173	265

Footnotes:

(18) Inventory objective Qty increase from 25 to 265 (based on fleet requirements. (9) items procured in FY2016 from BLI 2846 to be installed in FY2017 documented in BLI 2820.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2830 / Afloat ATC 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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	33.484	-	33.484	44.403	48.380	48.915	49.776	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	33.484	-	33.484	44.403	48.380	48.915	49.776	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	33.484	-	33.484	44.403	48.380	48.915	49.776	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	0.099	-	0.099	0.352	-	-	-	-	0.451
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Efforts for Shipboard Air Traffic Control (SATC) and Automatic Carrier Landing System (ACLS) were previously funded under BLIs OPN 2831 and OPN 2832, respectively. Beginning in FY 2017, this consolidated line item (OPN 2830, Afloat ATC Equipment) continues efforts previously executed under OPN 2831 and OPN 2832 and is not considered a new start.

DESCRIPTION:

SATC:

SATC systems are responsible for safe and expeditious control of air traffic within 50 Nautical Miles of a ship. SATC systems include the air traffic surveillance radar, AN/SPN-43, and the air traffic central tracking and control system, AN/TPX-42, which has two major configurations: Carrier Air Traffic Control Center-Direct Altitude and Identity Readout (CATCC-DAIR) and Amphibious Air Traffic Control Center-Direct Altitude and Identity Readout (AATCC-DAIR). Both DAIR systems use AN/SPN-43 and Identification Friend or Foe (IFF) inputs to track and control aircraft. Obsolescence problems are being addressed through various upgrades in a phased approach. The major upgrades include a series of AN/TPX-42 modification kits requiring various combinations of AN/UYK-44 processor rehost, track processor upgrade, AN/UYQ-70 console, audio recorder, flat panel display, and other components to bring the predecessor system to AN/TPX-42A(V)14 with field changes 1, 2, 3, 4, and 5 configuration and eventually to the Air Traffic Control Multifunction Console configuration. The AN/SPN-43 radar system is required for the service-life of CVN68-CVN77 & LHA/LHD class ships with no replacement system identified. Procurement, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2831.

ACLS:

ACLS provides the primary precision electronic guidance for landing aircraft under all weather conditions on CVNs, LHAs, LHDs and selected Naval Air Stations. Many of the components in the system have been in service for more than twenty years. This program funds maintainability, reliability and supportability improvements to existing equipment components that can no longer be maintained and supported, as well as items providing upgraded operational capability. AN/SPN-46 Life Cycle Extension (LCE) sustainment efforts will be supplemented with other changes, as necessary, to offset obsolescence and supportability issues, the need for Commercial Off-The-Shelf (COTS) refresh, and to support system interface requirements. LCE efforts include Radar Control Group Unit 19, Embedded Global Positioning System and Inertial Navigation System (EGI) replacement, Computer Group replacement, Radar Receiver set replacement, Peripheral Display replacement, and Common Console replacement efforts.

AN/SPN-46 Precision Approach Landing System (PALS) provides aircraft position information to the Final Control Workstation in Carrier Air Traffic Control Center (CATCC), and provides the pilot with the capability of selecting a fully automatic, instrument landing, or talk down approach. This system is certified to provide the carrier with an all-weather flight operational capability. This system is operational in all weather conditions with minimal degradation due to sea state. Initial Operational Capability (IOC) of the AN/SPN-46(V) was in 1985, and the system has exceeded its design life. There are significant obsolescence issues. Block IV is designed to correct known obsolescence issues in the antenna pedestal, 50KW Ka band modulator/transmitter, and various Circuit Card Assemblies (CCAs). This effort is

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2830 / Afloat ATC 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	
<p>designed to extend the supportability of the AN/SPN-46(V) to the 2040 timeframe. If this effort is not accomplished, replacement parts will not be available to support the system, thereby, negatively affecting Operational Availability (Ao) and safety of flight on the aircraft carrier.</p> <p>AN/SPN-41 LCE sustainment efforts will be supplemented with other changes, as necessary, to offset obsolescence and supportability issues and to support systems interface requirements. Additionally, the AN/SPN-41 system is the Joint Precision Approach and Landing System (JPALS) back-up system.</p> <p>Procurement, installations and associated support costs for this effort prior to FY2017 were funded under BLI 2832.</p> <p>Installing Agent: Shipyards and Alteration Installation Teams.</p> <p>When installation to be made: Selected Restricted Availability (SRA) / Restricted Availability (RAV).</p> <p>Ships or facilities to receive the equipment: CVNs, LHD/LHAs, Software Support Activity (NAWCAD, St Inigoes, MD), Integrated Combat System Test Facility (San Diego, CA), Landing Systems Test Facility (NAWCAD, Patuxent River, MD), and training sites.</p>		

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2830 / Afloat ATC 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				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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059) (Modernization)			- / 0.000	- / -	- / -	- / 8.485	- / -	- / 8.485
P-3a	2 / ACLS MOD KITS SUMMARY PN408 (Modernization)			- / 0.000	- / -	- / -	- / 8.872	- / -	- / 8.872
P-3a	3 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)			- / 0.000	- / -	- / -	- / 8.316	- / -	- / 8.316
P-3a	4 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414 (Reliability)			- / 0.000	- / -	- / -	- / 0.272	- / -	- / 0.272
P-3a	5 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)			- / 0.000	- / -	- / -	- / 1.186	- / -	- / 1.186
P-3a	6 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)			- / 0.000	- / -	- / -	- / 0.613	- / -	- / 0.613
P-3a	7 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)			- / 0.000	- / -	- / -	- / 2.310	- / -	- / 2.310
P-3a	8 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)			- / 0.000	- / -	- / -	- / 2.101	- / -	- / 2.101
P-3a	9 / AN/SPN-46 Block IV (PN420) (TBD)			- / 0.000	- / -	- / -	- / 1.329	- / -	- / 1.329
P-3a	10 / AN/SPN-35 Block I (PN421) (TBD)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 33.484	- / -	- / 33.484

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059) (Modernization)			- / 8.617	- / 8.700	- / 8.655	- / 8.685	Continuing	Continuing
P-3a	2 / ACLS MOD KITS SUMMARY PN408 (Modernization)			- / 12.347	- / 11.634	- / 12.729	- / 18.056	Continuing	Continuing
P-3a	3 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)			- / 7.086	- / 1.554	- / -	- / -	- / -	- / 16.956
P-3a	4 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 0.272
P-3a	5 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)			- / 0.499	- / 0.019	- / -	- / -	- / -	- / 1.704
P-3a	6 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)			- / 0.503	- / 0.126	- / -	- / -	- / -	- / 1.242
P-3a	7 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)			- / 1.392	- / -	- / -	- / -	- / -	- / 3.702
P-3a	8 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)			- / 0.148	- / -	- / -	- / -	- / -	- / 2.249
P-3a	9 / AN/SPN-46 Block IV (PN420) (TBD)			- / 13.811	- / 26.347	- / 20.338	- / 15.436	Continuing	Continuing
P-3a	10 / AN/SPN-35 Block I (PN421) (TBD)			- / -	- / -	- / 7.193	- / 7.599	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 44.403	- / 48.380	- / 48.915	- / 49.776	Continuing	Continuing

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

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

Justification:

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2830 / Afloat ATC 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	
<p>FY2017 provides funding to procure: six AN/TPN-42 UPG FC4 kits, three AN/TPX-42 UPG FC5 kits, six TPX-42 Embedded Trainers, two AN/TPX-42 ECP Upgrades, four AN/SPN-43 ECP Upgrades and associated support.</p> <p>FY2017 provides funding to procure twelve ACLS modification kits (PN408) which include four AN/SPN-46 4176, two AN/SPN-46 COTS Refresh, four AN/SPN-46 Obsolescence, and two AN/SPN-35 Receiver Transmitter Modifications. Also FY17 procures three AN/SPN-46 Radar Set Groups (PN413), four AN/SPN-41 Transmitter Modifications (PN416), one AN/SPN-41 Coder Monitor (PN417), and four AN/SPN-41 Electronic Drawer Assemblies (PN418), and four AN/SPN-41 Radome Hardware Upgrades (PN419).</p>		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	8.485	-	8.485	8.617	8.700	8.655	8.685	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	8.485	-	8.485	8.617	8.700	8.655	8.685	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	8.485	-	8.485	8.617	8.700	8.655	8.685	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs that do not exceed \$5 million in either budget or \$10 million in three years. This exhibit summarizes procurement and installation for Cost Codes MP052, MP054, MP055, MP056, MP057, MP058, and MP059. Line item "Engineering Changes to Correct Deficiencies" captures unanticipated emergent engineering changes. Inventory Objectives (29) TPX-42 UPG, FC4, (24) TPX-42 UPG FC5, (25) TPX-42 Embedded Trainer, (22) TPX-42 Embedded Trainer - Final Control, (25) TPX-42 Multi-Function Console, (29) TPX-42 ECP Upgrades, (38) SPN-43 ECP Upgrades as set forth in the respective CNO letters authorizing each modification.

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Exhibit P-3a, Individual Modification: PB 2017 Navy											Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)					
Models of Systems Affected: CVNs, L-class				Modification Type: Modernization				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)</i>													
B Kits													
Recurring													
1.1.4 (MP054)TPX-42 UPG, FC4 (Recorders) - NonOrganic ⁽¹⁾	- / -	- / -	6 / -	6 / 0.306	- / -	6 / 0.306	2 / 0.104	6 / 0.318	5 / 0.275	- / -	- / -	25 / 1.003	
1.1.5 (MP055) TPX-42 UPG, FC5 - NonOrganic ⁽²⁾	- / -	- / -	3 / -	3 / 1.470	- / -	3 / 1.470	2 / 0.998	2 / 1.003	- / -	- / -	- / -	10 / 3.471	
1.1.6 (MP056) TPX-42 Embedded Trainer - NonOrganic ⁽³⁾	- / -	- / -	6 / -	6 / 0.536	- / -	6 / 0.536	2 / 0.140	1 / 0.071	2 / 0.148	- / -	- / -	17 / 0.895	
1.1.7 (MP057) TPX-42 Embedded Trainer Final Control - NonOrganic ⁽⁴⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.410	6 / 0.268	5 / 0.278	4 / 0.196	22 / 1.152	
1.1.8 (MP058) TPX-42 Multi-Function Console - NonOrganic ⁽⁵⁾	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.830	1 / 1.470	1 / 1.536	1 / 1.520	20 / 25.866	25 / 33.222	
1.1.9 (MP059) TPX-42 ECP Upgrades - NonOrganic ⁽⁶⁾	- / -	- / -	4 / -	2 / 0.651	- / -	2 / 0.651	2 / 0.417	3 / 0.799	2 / 0.688	2 / 0.693	10 / 3.490	25 / 6.738	
1.1.18 (MP052) SPN-43 ECP Upgrade - NonOrganic ⁽⁷⁾	- / -	- / -	6 / -	4 / 0.952	- / -	4 / 0.952	3 / 0.837	2 / 0.568	3 / 0.880	1 / 0.299	10 / 3.200	29 / 6.736	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.915</i>	<i>- / -</i>	<i>- / 3.915</i>	<i>- / 5.326</i>	<i>- / 4.639</i>	<i>- / 3.795</i>	<i>- / 2.790</i>	<i>- / 32.752</i>	<i>- / 53.217</i>	
<i>Subtotal: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)</i>	<i>- / -</i>	<i>- / -</i>	<i>25 / -</i>	<i>21 / 3.915</i>	<i>- / -</i>	<i>21 / 3.915</i>	<i>13 / 5.326</i>	<i>22 / 4.639</i>	<i>19 / 3.795</i>	<i>9 / 2.790</i>	<i>44 / 32.752</i>	<i>153 / 53.217</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.915</i>	<i>- / -</i>	<i>- / 3.915</i>	<i>- / 5.326</i>	<i>- / 4.639</i>	<i>- / 3.795</i>	<i>- / 2.790</i>	<i>- / 32.752</i>	<i>- / 53.217</i>	
Support (All Modification Items)													
2.1) Engineering Changes to Correct Deficiencies	- / -	- / -	- / -	- / 0.352	- / -	- / 0.352	- / 0.366	- / 0.385	- / 0.361	- / 0.372	Continuing	Continuing	
2.2) Integrated Logistics Support	- / -	- / -	- / -	- / 0.281	- / -	- / 0.281	- / 0.285	- / 0.295	- / 0.302	- / 0.308	Continuing	Continuing	
2.3) Production Engineering	- / -	- / -	- / -	- / 0.270	- / -	- / 0.270	- / 0.275	- / 0.285	- / 0.280	- / 0.283	Continuing	Continuing	
2.4) Quality Assurance	- / -	- / -	- / -	- / 0.050	- / -	- / 0.050	- / 0.055	- / 0.055	- / 0.055	- / 0.050	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.953</i>	<i>- / -</i>	<i>- / 0.953</i>	<i>- / 0.981</i>	<i>- / 1.020</i>	<i>- / 0.998</i>	<i>- / 1.013</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.617</i>	<i>- / -</i>	<i>- / 3.617</i>	<i>- / 2.310</i>	<i>- / 3.041</i>	<i>- / 3.862</i>	<i>- / 4.882</i>	<i>- / 34.528</i>	<i>- / 52.240</i>	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.617</i>	<i>- / -</i>	<i>- / 3.617</i>	<i>- / 2.310</i>	<i>- / 3.041</i>	<i>- / 3.862</i>	<i>- / 4.882</i>	<i>- / 34.528</i>	<i>- / 52.240</i>	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Models of Systems Affected: CVNs, L-class			Modification Type: Modernization					Related RDT&E PEs:				
Financial Plan	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
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	8.485	-	8.485	8.617	8.700	8.655	8.685	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 6

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

Installation Information

Method of Implementation: Field Change Install Team:: Installation Name: SATC Modernization Kit Summary

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	21 / 2.477	- / -	21 / 2.477	- / -	- / -	- / -	- / -	- / -	21 / 2.477
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	19 / 1.859	- / -	- / -	- / -	- / -	19 / 1.859
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.835	- / -	- / -	- / -	9 / 0.835
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.018	- / -	- / -	18 / 2.018
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 2.072	- / -	16 / 2.072
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.431	6 / 0.431
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 4.675	14 / 4.675
Total	- / -	- / -	- / -	21 / 2.477	- / -	21 / 2.477	19 / 1.859	9 / 0.835	18 / 2.018	16 / 2.072	20 / 5.106	103 / 14.367

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	8	8	5	-	7	7	5	-	2	3	4	-	4	8	6	-	4	7	5	-	20	103
Out	-	-	-	-	-	-	-	-	-	8	8	5	-	7	7	5	-	2	3	4	-	4	8	6	-	4	7	5	-	20	103

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Installation Information

Method of Implementation: AIT:: Installation Name: (MP058) TPX-42 Multi-Function Console

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.932	- / -	- / -	- / -	2 / 1.932
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.182	- / -	- / -	1 / 1.182
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.883	- / -	1 / 1.883
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.998	1 / 0.998
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 23.309	20 / 23.309
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.932	1 / 1.182	1 / 1.883	21 / 24.307	25 / 29.304

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	1	-	-	21	25
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	-	1	-	-	21	25

Method of Implementation: AIT:: Installation Name: (MP059) TPX-42 ECP Upgrades

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	4 / 1.140	- / -	4 / 1.140	- / -	- / -	- / -	- / -	- / -	4 / 1.140
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.451	- / -	- / -	- / -	- / -	2 / 0.451
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.274	- / -	- / -	- / -	2 / 0.274
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.662	- / -	- / -	3 / 0.662
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.927	- / -	2 / 0.927
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.930	2 / 0.930

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Modification Item 1 of 1: SATC Modernization Kit Summary (MP052, MP054, MP055, MP056, MP057, MP058, MP059)

Installation Information

Method of Implementation: AIT:: Installation Name: (MP059) TPX-42 ECP Upgrades

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 4.185	10 / 4.185
Total	- / -	- / -	- / -	4 / 1.140	- / -	4 / 1.140	2 / 0.451	2 / 0.274	3 / 0.662	2 / 0.927	12 / 5.115	25 / 8.569

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	2	2	-	-	1	1	-	-	1	1	-	-	2	1	-	-	1	1	-	12	25
Out	-	-	-	-	-	-	-	-	-	-	2	2	-	-	1	1	-	-	1	1	-	-	2	1	-	-	1	1	-	12	25

Footnotes:

- (1) (MP054)TPX-42 UPG, FC4 (Recorders). Inventory objective is 29. 10 procurements and 4 installations were funded prior to FY2017 and are reflected on BLI 2831.
- (2) (MP055) TPX-42 UPG, FC5. Inventory objective is 24. 17 procurements and 14 installations were funded prior to FY2017 and are reflected on BLI 2831.
- (3) (MP056) TPX-42 Embedded Trainer. Inventory objective is 25. 14 procurements and 8 installations were funded prior to FY2017 and are reflected on BLI 2831.
- (4) (MP057) TPX-42 Embedded Trainer Final Control. Inventory objective is 22
- (5) (MP058) TPX-42 Multi-Function Console. Inventory objective is 25
- (6) (MP059) TPX-42 ECP Upgrades. Inventory objective 29. 8 procurements and 4 installations were funded prior to FY2017 and are reflected on BLI 2831.
- (7) (MP052) SPN-43 ECP Upgrades. Inventory objective 38. 15 procurements and 9 installations were funded prior to FY2017 and are reflected on BLI 2831.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 2 / ACLS MOD KITS SUMMARY PN408
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	8.872	-	8.872	12.347	11.634	12.729	18.056	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	8.872	-	8.872	12.347	11.634	12.729	18.056	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	8.872	-	8.872	12.347	11.634	12.729	18.056	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs for AN/SPN-35/41/46 systems. Line item "Engineering Changes to Correct Deficiencies" captures anticipated emergent engineering changes. PMA213 configuration control board approves inventory objectives. Contract and Delivery dates are various.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment						Modification Number / Title: 2 / ACLS MOD KITS SUMMARY PN408			
Models of Systems Affected: CVN's L-class, selected shore sites				Modification Type: Modernization						Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408</i>													
B Kits													
Non-Recurring													
1.1.1) AN/SPN-46 TS-4176 - NonOrganic	- / -	- / -	4 / -	4 / 0.800	- / -	4 / 0.800	1 / 0.200	- / -	- / -	- / -	- / -	9 / 1.000	
1.1.3) AN/SPN-46 COTS Refresh - NonOrganic ⁽⁸⁾	- / -	- / -	- / -	2 / 0.510	- / -	2 / 0.510	20 / 5.000	21 / 8.921	- / -	- / -	- / -	43 / 14.431	
1.1.4) AN/SPN-46 Obsolescence - NonOrganic	- / -	- / -	6 / -	4 / 0.876	- / -	4 / 0.876	- / -	- / -	- / -	- / -	- / -	10 / 0.876	
1.1.14) AN/SPN-35 Receiver Transmitter Mod - NonOrganic	- / -	- / -	4 / -	2 / 0.056	- / -	2 / 0.056	1 / 0.028	- / -	- / -	- / -	- / -	7 / 0.084	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / 2.242	- / -	- / 2.242	- / 5.228	- / 8.921	- / -	- / -	- / -	- / 16.391	
<i>Subtotal: ACLS MOD KITS SUMMARY PN408</i>	- / -	- / -	14 / -	12 / 2.242	- / -	12 / 2.242	22 / 5.228	21 / 8.921	- / -	- / -	- / -	69 / 16.391	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 2.242	- / -	- / 2.242	- / 5.228	- / 8.921	- / -	- / -	- / -	- / 16.391	
Support (All Modification Items)													
2.1) Engineering Changes to Correct Deficiencies ECO SPN-46	- / -	- / -	- / -	- / 0.600	- / -	- / 0.600	- / 0.255	- / -	- / 0.640	- / 8.605	Continuing	Continuing	
2.2) Engineering Changes to Correct Deficiencies ECO SPN-35/41	- / -	- / -	- / -	- / 0.639	- / -	- / 0.639	- / 1.658	- / -	- / 5.066	- / 1.975	Continuing	Continuing	
2.3) Integrated Logistics Support	- / -	- / -	- / -	- / 0.765	- / -	- / 0.765	- / 0.780	- / 0.446	- / 0.459	- / 0.473	Continuing	Continuing	
2.4) Production Engineering ⁽⁹⁾	- / -	- / -	- / -	- / 3.533	- / -	- / 3.533	- / 3.518	- / 0.836	- / 5.914	- / 6.894	Continuing	Continuing	
2.5) Quality Assurance	- / -	- / -	- / -	- / 0.102	- / -	- / 0.102	- / -	- / 0.106	- / -	- / 0.109	Continuing	Continuing	
2.6) Acceptance, Test and Evaluation	- / -	- / -	- / -	- / 0.030	- / -	- / 0.030	- / -	- / -	- / -	- / -	- / -	- / 0.030	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 5.669	- / -	- / 5.669	- / 6.211	- / 1.388	- / 12.079	- / 18.056	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.961	- / -	- / 0.961	- / 0.908	- / 1.325	- / 0.650	- / -	- / -	- / 3.844	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	8.872	-	8.872	12.347	11.634	12.729	18.056	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 2 / ACLS MOD KITS SUMMARY PN408

Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: AIT (Alteration Installation Team):: Installation Name: ACLS Mod Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	14 / 0.961	- / -	14 / 0.961	- / -	- / -	- / -	- / -	- / -	14 / 0.961
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.908	- / -	- / -	- / -	- / -	12 / 0.908
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 1.325	- / -	- / -	- / -	22 / 1.325
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.650	- / -	- / -	21 / 0.650
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	14 / 0.961	- / -	14 / 0.961	12 / 0.908	22 / 1.325	21 / 0.650	- / -	- / -	69 / 3.844

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	1	6	7	-	-	6	6	-	-	10	12	-	-	10	11	-	-	-	-	-	-	-	69
Out	-	-	-	-	-	-	-	-	-	1	6	7	-	-	6	6	-	-	10	12	-	-	10	11	-	-	-	-	-	-	-	69

Footnotes:

⁽⁸⁾ The variance in Install Costs from year to year is due to the makeup of the different equipment being installed each year and the hulls where the installs are happening are different. The location of the different installs and projected Design Services Allocation (DSA) costs associated with each install also factor in the increase.

⁽⁹⁾ Several SPN-46 subassemblies are rapidly becoming unsustainable due primarily to component obsolescence. Increased production engineering will be required in support of future, approved ECP efforts to mitigate these issues and keep the SPN-46 viable to support Warfighter ACLS operations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 3 / AN/SPN-46 (V)3 Radar Set Group PN413				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	8.316	-	8.316	7.086	1.554	-	-	-	16.956
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	8.316	-	8.316	7.086	1.554	-	-	-	16.956
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	8.316	-	8.316	7.086	1.554	-	-	-	16.956
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The current AN/SPN-46 (V) 3 receiver houses both Ka and X-band components that are densely packaged. Maintenance on these units is difficult with a high probability of damaging components because of this dense packaging. Some of the RF components are 1960s technology and are no longer manufactured. The Radar Set Group re-packages the RF components using more modern and smaller components thus making the unit much easier to maintain and support. The inventory objective for this item is thirteen, of which eleven are OPN-funded and two SCN-funded. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 3 / AN/SPN-46 (V)3 Radar Set Group PN413

Models of Systems Affected: CVNs and selected shore sites	Modification Type: Reliability	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SPN-46 (V)3 Radar Set Group PN413												
B Kits												
Recurring												
2.1.1) AN/SPN-46 (V)3 Radar Set Group PN413 - NonOrganic ⁽¹⁰⁾	- / -	- / -	3 / -	3 / 3.926	- / -	3 / 3.926	2 / 2.695	- / -	- / -	- / -	- / -	8 / 6.621
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 3.926	- / -	- / 3.926	- / 2.695	- / -	- / -	- / -	- / -	- / 6.621
<i>Subtotal: AN/SPN-46 (V)3 Radar Set Group PN413</i>	- / -	- / -	3 / -	3 / 3.926	- / -	3 / 3.926	2 / 2.695	- / -	- / -	- / -	- / -	8 / 6.621
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 3.926	- / -	- / 3.926	- / 2.695	- / -	- / -	- / -	- / -	- / 6.621
Support (All Modification Items)												
3.1) Integrated Logistic Support	- / -	- / -	- / -	- / 0.049	- / -	- / 0.049	- / 0.047	- / -	- / -	- / -	- / -	- / 0.096
3.2) Production Engineering	- / -	- / -	- / -	- / 1.928	- / -	- / 1.928	- / 1.871	- / -	- / -	- / -	- / -	- / 3.799
3.3) Acceptance Test & Evaluation	- / -	- / -	- / -	- / 0.214	- / -	- / 0.214	- / 0.208	- / -	- / -	- / -	- / -	- / 0.422
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 2.191	- / -	- / 2.191	- / 2.126	- / -	- / -	- / -	- / -	- / 4.317
Installation												
<i>Modification Item 1 of 1:</i> AN/SPN-46 (V)3 Radar Set Group PN413	- / 0.000	- / -	- / -	- / 2.199	- / -	- / 2.199	- / 2.265	- / 1.554	- / -	- / -	- / -	- / 6.018
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 2.199	- / -	- / 2.199	- / 2.265	- / 1.554	- / -	- / -	- / -	- / 6.018
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	8.316	-	8.316	7.086	1.554	-	-	-	16.956

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 3 / AN/SPN-46 (V)3 Radar Set Group PN413

Modification Item 1 of 1: AN/SPN-46 (V)3 Radar Set Group PN413

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Alteration Installation Team (AIT):: Installation Name: AN/SPN-46 (V)3 Radar Set Group PN413

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	3 / 2.199	- / -	3 / 2.199	- / -	- / -	- / -	- / -	- / -	3 / 2.199
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.265	- / -	- / -	- / -	- / -	3 / 2.265
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.554	- / -	- / -	- / -	2 / 1.554
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	3 / 2.199	- / -	3 / 2.199	3 / 2.265	2 / 1.554	- / -	- / -	- / -	8 / 6.018

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1	2	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	8

Footnotes:

⁽¹⁰⁾ Inventory objective is thirteen, of which eleven are OPN-funded and two SCN-funded. Six of the 11 OPN funded were procured prior to FY2017 under BLI 2832 and three of those 6 were installed prior to FY2017 under BLI 2832.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 4 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	0.272	-	0.272	-	-	-	-	-	0.272
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	0.272	-	0.272	-	-	-	-	-	0.272
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	0.272	-	0.272	-	-	-	-	-	0.272
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The peripheral upgrade ECP replaces the fixed format displays with programmable displays eliminating the Standard Electronic Module (SEM) and providing total flexibility in format and content of displayed data. The inventory objective for this item is fifteen, of which thirteen are OPN-funded and two SCN-funded. PMA-213 configuration control board approves inventory objectives.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 4 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414

Models of Systems Affected: CVNs and selected shore sites	Modification Type: Reliability	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414												
B Kits												
Recurring												
2.1.1) AN/SPN-46(V)3 Peripheral Display (LCE) - NonOrganic ⁽¹¹⁾	- / -	- / -	2 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / -
Subtotal: Recurring	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Subtotal: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414	- / -	- / -	2 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / -
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

Installation

Modification Item 1 of 1: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414	- / 0.000	- / -	- / -	- / 0.272	- / -	- / 0.272	- / -	- / -	- / -	- / -	- / -	- / 0.272
Subtotal: Installation	- / 0.000	- / -	- / -	- / 0.272	- / -	- / 0.272	- / -	- / -	- / -	- / -	- / -	- / 0.272

Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	0.272	-	0.272	-	-	-	-	-	0.272

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 4 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414

Modification Item 1 of 1: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Alteration Installation Team (AIT):: Installation Name: AN/SPN-46(V)3 Peripheral Display (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 0.272	- / -	2 / 0.272	- / -	- / -	- / -	- / -	- / -	2 / 0.272
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 0.272	- / -	2 / 0.272	- / -	- / -	- / -	- / -	- / -	2 / 0.272

Installation Schedule

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

Footnotes:
⁽¹¹⁾ Inventory objective is fifteen, of which thirteen are OPN-funded and two SCN-funded. All thirteen OPN units were procured prior to FY2017 under BLI 2832 and eleven of the thirteen were installed prior to FY2017 under BLI 2832.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 5 / AN/SPN-41 Transmitter MOD (LCE) PN416				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	1.186	-	1.186	0.499	0.019	-	-	-	1.704
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	1.186	-	1.186	0.499	0.019	-	-	-	1.704
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	1.186	-	1.186	0.499	0.019	-	-	-	1.704
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Transmitter MOD (LCE) PN416. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-034 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension (LCE) program. The existing transmitter is an older technology two-channel SCR line type modulator that is experiencing serious maintainability and obsolescence issues. The transmitter is the number one cost driver and system performance degrader. This change will improve logistic supportability and system maintainability. Lowest Repairable Units (LRUs) CCAs and Built-In Test (BIT) capabilities (LCE only) will be added to transmitter thus reducing cost for shipboard repairs and maintenance.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 5 / AN/SPN-41 Transmitter MOD (LCE) PN416

Models of Systems Affected: CVN's L-Class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Transmitter MOD (LCE) PN416												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Transmitter Replacement (LCE) - NonOrganic ⁽¹²⁾	- / -	- / -	1 / -	4 / 0.988	- / -	4 / 0.988	1 / 0.255	- / -	- / -	- / -	- / -	6 / 1.243
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 0.988	- / -	- / 0.988	- / 0.255	- / -	- / -	- / -	- / -	- / 1.243
<i>Subtotal: AN/SPN-41 Transmitter MOD (LCE) PN416</i>	- / -	- / -	1 / -	4 / 0.988	- / -	4 / 0.988	1 / 0.255	- / -	- / -	- / -	- / -	6 / 1.243
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 0.988	- / -	- / 0.988	- / 0.255	- / -	- / -	- / -	- / -	- / 1.243
Support (All Modification Items)												
3.1) Integrated Logistics	- / -	- / -	- / -	- / 0.031	- / -	- / 0.031	- / 0.030	- / -	- / -	- / -	- / -	- / 0.061
3.2) Production Engineering	- / -	- / -	- / -	- / 0.142	- / -	- / 0.142	- / 0.138	- / -	- / -	- / -	- / -	- / 0.280
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.173	- / -	- / 0.173	- / 0.168	- / -	- / -	- / -	- / -	- / 0.341
Installation												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Transmitter MOD (LCE) PN416	- / 0.000	- / -	- / -	- / 0.025	- / -	- / 0.025	- / 0.076	- / 0.019	- / -	- / -	- / -	- / 0.120
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.025	- / -	- / 0.025	- / 0.076	- / 0.019	- / -	- / -	- / -	- / 0.120
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	1.186	-	1.186	0.499	0.019	-	-	-	1.704

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 5 / AN/SPN-41 Transmitter MOD (LCE) PN416

Modification Item 1 of 1: AN/SPN-41 Transmitter MOD (LCE) PN416

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Webster Field, St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Alteration Installation Team:: Installation Name: AN/SPN-41 Transmitter Replacement (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 0.025	- / -	1 / 0.025	- / -	- / -	- / -	- / -	- / -	1 / 0.025
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.076	- / -	- / -	- / -	- / -	4 / 0.076
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.019	- / -	- / -	- / -	1 / 0.019
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.025	- / -	1 / 0.025	4 / 0.076	1 / 0.019	- / -	- / -	- / -	6 / 0.120

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	1	-	-	-	4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6
Out	-	-	-	-	-	-	-	-	-	-	-	1	-	-	4	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	6

Footnotes:

(12) AN/SPN-41 Transmitter MOD(LCE)inventory objective is 19. 14 procurements and 13 installations were funded through FY2016 on BLI 2832.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 6 / AN/SPN-41 Coder Monitor (LCE) PN417				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	0.613	-	0.613	0.503	0.126	-	-	-	1.242
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	0.613	-	0.613	0.503	0.126	-	-	-	1.242
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	0.613	-	0.613	0.503	0.126	-	-	-	1.242
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Coder Monitor (LCE) PN417. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-031 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension program. This change will provide upgrades to AN/SPN-41/41A to improve Operational Availability (Ao) by addressing numerous part obsolescence issues germane to the current aging system. The change will also provide digital interfaces with other shipboard systems including the Joint Precision Approach Landing System (JPALS), and extend the service life of the AN/SPN-41/41A.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 6 / AN/SPN-41 Coder Monitor (LCE) PN417

Models of Systems Affected: CVN's L-Class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1: AN/SPN-41 Coder Monitor (LCE) PN417</i>												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Coder Monitor (LCE) - NonOrganic (13)	- / -	- / -	1 / -	1 / 0.207	- / -	1 / 0.207	1 / 0.207	- / -	- / -	- / -	- / -	3 / 0.414
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 0.207	- / -	- / 0.207	- / 0.207	- / -	- / -	- / -	- / -	- / 0.414
<i>Subtotal: AN/SPN-41 Coder Monitor (LCE) PN417</i>	- / -	- / -	1 / -	1 / 0.207	- / -	1 / 0.207	1 / 0.207	- / -	- / -	- / -	- / -	3 / 0.414
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 0.207	- / -	- / 0.207	- / 0.207	- / -	- / -	- / -	- / -	- / 0.414
Support (All Modification Items)												
3.1) Integrated Logistic Support	- / -	- / -	- / -	- / 0.107	- / -	- / 0.107	- / 0.032	- / -	- / -	- / -	- / -	- / 0.139
3.2) Production Engineering	- / -	- / -	- / -	- / 0.177	- / -	- / 0.177	- / 0.140	- / -	- / -	- / -	- / -	- / 0.317
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.284	- / -	- / 0.284	- / 0.172	- / -	- / -	- / -	- / -	- / 0.456
Installation												
<i>Modification Item 1 of 1: AN/SPN-41 Coder Monitor (LCE) PN417</i>	- / 0.000	- / -	- / -	- / 0.122	- / -	- / 0.122	- / 0.124	- / 0.126	- / -	- / -	- / -	- / 0.372
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.122	- / -	- / 0.122	- / 0.124	- / 0.126	- / -	- / -	- / -	- / 0.372
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	0.613	-	0.613	0.503	0.126	-	-	-	1.242

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 6 / AN/SPN-41 Coder Monitor (LCE) PN417

Modification Item 1 of 1: AN/SPN-41 Coder Monitor (LCE) PN417

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Coder Monitor (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 0.122	- / -	1 / 0.122	- / -	- / -	- / -	- / -	- / -	1 / 0.122
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.124	- / -	- / -	- / -	- / -	1 / 0.124
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.126	- / -	- / -	- / -	1 / 0.126
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.122	- / -	1 / 0.122	1 / 0.124	1 / 0.126	- / -	- / -	- / -	3 / 0.372

Installation Schedule

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

Footnotes:

(13) AN/SPN-41 Coder Monitor (LCE) inventory objective is 22 of which 20 procurements and 19 installations were funded through FY2016 on BLI 2832.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 7 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	2.310	-	2.310	1.392	-	-	-	-	3.702
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	2.310	-	2.310	1.392	-	-	-	-	3.702
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	2.310	-	2.310	1.392	-	-	-	-	3.702
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Electronic Drawer Assembly (LCE) PN418. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-031 and SPN41-034 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension program. This change will provide upgrades to AN/SPN-41/41A to improve Operational Availability (Ao) by addressing numerous part obsolescence issues germane to the current aging system. The change will also provide digital interfaces with other shipboard systems including the Joint Precision Approach Landing System (JPALS), and extend the service life of the AN/SPN-41/41A.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 7 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Models of Systems Affected: CVNs, L-class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Electronic Drawer Assembly (LCE) - NonOrganic ⁽¹⁴⁾	- / -	- / -	1 / -	4 / 1.712	- / -	4 / 1.712	- / -	- / -	- / -	- / -	- / -	5 / 1.712
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.712	- / -	- / 1.712	- / -	- / -	- / -	- / -	- / -	- / 1.712
<i>Subtotal: AN/SPN-41 Electronic Drawer Assembly (LCE) PN418</i>	- / -	- / -	1 / -	4 / 1.712	- / -	4 / 1.712	- / -	- / -	- / -	- / -	- / -	5 / 1.712
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 1.712	- / -	- / 1.712	- / -	- / -	- / -	- / -	- / -	- / 1.712
Support (All Modification Items)												
3.1) Integrated Logistics	- / -	- / -	- / -	- / 0.086	- / -	- / 0.086	- / -	- / -	- / -	- / -	- / -	- / 0.086
3.2) Production Engineering	- / -	- / -	- / -	- / 0.388	- / -	- / 0.388	- / -	- / -	- / -	- / -	- / -	- / 0.388
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.474	- / -	- / 0.474	- / -	- / -	- / -	- / -	- / -	- / 0.474
Installation												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418	- / 0.000	- / -	- / -	- / 0.124	- / -	- / 0.124	- / 1.392	- / -	- / -	- / -	- / -	- / 1.516
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.124	- / -	- / 0.124	- / 1.392	- / -	- / -	- / -	- / -	- / 1.516
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	2.310	-	2.310	1.392	-	-	-	-	3.702

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 7 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Modification Item 1 of 1: AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Webster Field, St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Electronic Drawer Assembly (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 0.124	- / -	1 / 0.124	- / -	- / -	- / -	- / -	- / -	1 / 0.124
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.392	- / -	- / -	- / -	- / -	4 / 1.392
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	1 / 0.124	- / -	1 / 0.124	4 / 1.392	- / -	- / -	- / -	- / -	5 / 1.516

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Footnotes:
⁽¹⁴⁾ AN/SPN-41 Electronic Drawer Assembly (LCE) inventory objective is 19. 15 procurements and 14 installations were funded through FY2016 on BLI 2832.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 8 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	2.101	-	2.101	0.148	-	-	-	-	2.249
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	2.101	-	2.101	0.148	-	-	-	-	2.249
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	2.101	-	2.101	0.148	-	-	-	-	2.249
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Radome Hardware Upgrade (LCE) PN419. The equipment and installation costs on this P-3a are for individual modification programs. This is part of the AN/SPN-41/41A Life Cycle Extension program. This change will improve overall AN/SPN-41/41A Operational Availability (Ao) by addressing extreme environmental issues currently being experienced by the systems in the field. This change increases overall thermal resistance while decreasing solar absorptivity thereby reducing the ambient operating temperature for the equipment inside the radome.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment						Modification Number / Title: 8 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419			
Models of Systems Affected: CVN's, L-Class, selected shore sites				Modification Type: Modernization				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419													
B Kits													
Recurring													
2.1.1) AN/SPN-41 Radome Hardware Upgrade - NonOrganic ⁽¹⁵⁾	- / -	- / -	2 / -	4 / 1.680	- / -	4 / 1.680	- / -	- / -	- / -	- / -	- / -	6 / 1.680	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.680	- / -	- / 1.680	- / -	- / -	- / -	- / -	- / -	- / 1.680	
<i>Subtotal: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419</i>	- / -	- / -	2 / -	4 / 1.680	- / -	4 / 1.680	- / -	- / -	- / -	- / -	- / -	6 / 1.680	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 1.680	- / -	- / 1.680	- / -	- / -	- / -	- / -	- / -	- / 1.680	
Support (All Modification Items)													
3.1) Production Engineering	- / -	- / -	- / -	- / 0.315	- / -	- / 0.315	- / -	- / -	- / -	- / -	- / -	- / 0.315	
3.2) Logistics	- / -	- / -	- / -	- / 0.034	- / -	- / 0.034	- / -	- / -	- / -	- / -	- / -	- / 0.034	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.349	- / -	- / 0.349	- / -	- / -	- / -	- / -	- / -	- / 0.349	
Installation													
<i>Modification Item 1 of 1:</i> AN/SPN-41 Radome Hardware Upgrade (LCE) PN419	- / 0.000	- / -	- / -	- / 0.072	- / -	- / 0.072	- / 0.148	- / -	- / -	- / -	- / -	- / 0.220	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 0.072	- / -	- / 0.072	- / 0.148	- / -	- / -	- / -	- / -	- / 0.220	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	2.101	-	2.101	0.148	-	-	-	-	2.249	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 8 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419

Modification Item 1 of 1: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419

Manufacturer Information							
Manufacturer Name: NAWCAD				Manufacturer Location: St. Inigoes, MD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Dec 2016				
Delivery Dates			Dec 2017				

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Radome Hardware Upgrade

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	2 / 0.072	- / -	2 / 0.072	- / -	- / -	- / -	- / -	- / -	2 / 0.072
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.148	- / -	- / -	- / -	- / -	4 / 0.148
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 0.072	- / -	2 / 0.072	4 / 0.148	- / -	- / -	- / -	- / -	6 / 0.220

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

Footnotes:

(15) AN/SPN-41 Radome Hardware Upgrade inventory objective is 17. 13 procurements and 11 installations were funded through FY2016 on BLI 2832.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 9 / AN/SPN-46 Block IV (PN420)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	1.329	-	1.329	13.811	26.347	20.338	15.436	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	1.329	-	1.329	13.811	26.347	20.338	15.436	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	1.329	-	1.329	13.811	26.347	20.338	15.436	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SPN-46 Block IV] The AN/SPN-46(V) Precision Approach Landing System (PALS) is a New Start for FY2017 and provides aircraft position information to the Final Control Workstation in Carrier Air Traffic Control Center (CATCC), and provides the pilot with the capability of selecting a fully automatic, instrument landing, or talk down approach. This system is certified to provide the carrier with an all-weather flight operational capability. This system is operational in all weather conditions with minimal degradation due to sea state. Initial Operational Capability (IOC) of the AN/SPN-46(V) was in 1985, and the system has exceeded its design life. There are significant obsolescence issues. Block IV is designed to correct known obsolescence issues in the antenna pedestal, 50KW Ka band modulator/transmitter, and various Circuit Card Assemblies (CCAs). This effort is designed to extend the supportability of the AN/SPN-46(V) to the 2040 timeframe. If this effort is not accomplished, replacement parts will not be available to support the system, thereby, negatively affecting Operational Availability (Ao) and safety of flight on the aircraft carrier. The inventory objective for this item is sixteen. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment					Modification Number / Title: 9 / AN/SPN-46 Block IV (PN420)				
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:						
Financial Plan	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		
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		
Procurement														
<i>Modification Item 1 of 1: AN/SPN-46 Block IV (PN420)</i>														
B Kits														
Recurring														
2.1.1) AN/SPN-46 Block IV - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	2 / 8.058	5 / 20.750	4 / 13.387	2 / 9.320	3 / 13.605	16 / 65.120		
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 8.058	- / 20.750	- / 13.387	- / 9.320	- / 13.605	- / 65.120		
<i>Subtotal: AN/SPN-46 Block IV (PN420)</i>	- / -	- / -	- / -	- / -	- / -	- / -	2 / 8.058	5 / 20.750	4 / 13.387	2 / 9.320	3 / 13.605	16 / 65.120		
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 8.058	- / 20.750	- / 13.387	- / 9.320	- / 13.605	- / 65.120		
Support (All Modification Items)														
3.1) Integrated Logistics Support ⁽¹⁶⁾	- / -	- / -	- / -	- / 0.514	- / -	- / 0.514	- / 2.000	- / 1.500	- / 1.202	- / 1.111	Continuing	Continuing		
3.2) Production Engineering	- / -	- / -	- / -	- / 0.815	- / -	- / 0.815	- / 3.503	- / 2.738	- / 2.685	- / 2.416	Continuing	Continuing		
3.3) Quality Assurance	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.250	- / 0.258	- / 0.265	- / 0.273	Continuing	Continuing		
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 1.329	- / -	- / 1.329	- / 5.753	- / 4.496	- / 4.152	- / 3.800	Continuing	Continuing		
Installation														
<i>Modification Item 1 of 1: AN/SPN-46 Block IV (PN420)</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.101	- / 2.799	- / 2.316	- / 3.017	- / 9.233		
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.101	- / 2.799	- / 2.316	- / 3.017	- / 9.233		
Total														
Total Cost (Procurement + Support + Installation)	0.000	-	-	1.329	-	1.329	13.811	26.347	20.338	15.436	Continuing	Continuing		

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 9 / AN/SPN-46 Block IV (PN420)
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Modification Item 1 of 1: AN/SPN-46 Block IV (PN420)

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-46 Block IV

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.101	- / -	- / -	- / -	2 / 1.101
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.799	- / -	- / -	5 / 2.799
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.316	- / -	4 / 2.316
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.186	2 / 1.186
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.831	3 / 1.831
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.101	5 / 2.799	4 / 2.316	5 / 3.017	16 / 9.233

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	1	-	-	2	2	-	5	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	1	-	-	2	2	-	5	16

Footnotes:

(16) FY17 ILS/PE funding is required support leading up to production starting in FY18.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment				Modification Number / Title: 10 / AN/SPN-35 Block I (PN421)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	7.193	7.599	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	7.193	7.599	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	7.193	7.599	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[AN/SPN-35 Block I] This modification upgrades the AN/SPN-35C. AN/SPN-35C is the Precision Approach Radar aboard LHA/LHD class ships and is used for Mode III aircraft recovery which ensures the safe approach and landing of AV-8B and various helicopters during adverse weather & night conditions. The AN/SPN-35C Block I upgrade includes replacement of common failure items, obsolete components, and analog system components. Block I will ensure the availability of, and extend the service life of the AN/SPN-35 to 2040. The inventory objective for this item is sixteen. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment					Modification Number / Title: 10 / AN/SPN-35 Block I (PN421)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> AN/SPN-35 Block I (PN421)													
B Kits													
Recurring													
2.1.1) AN/SPN-35 Block I - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.600	3 / 5.562	11 / 63.017	16 / 72.179	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.600	- / 5.562	- / 63.017	- / 72.179	
<i>Subtotal: AN/SPN-35 Block I (PN421)</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.600	3 / 5.562	11 / 63.017	16 / 72.179	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.600	- / 5.562	- / 63.017	- / 72.179	
Support (All Modification Items)													
3.1) Integrated Logistics	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.524	- / 0.540	Continuing	Continuing	
3.2) Production Engineering	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.044	- / 1.157	Continuing	Continuing	
3.3) Quality Assurance	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.025	- / 0.040	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.593	- / 1.737	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> AN/SPN-35 Block I (PN421)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.300	- / 2.208	- / 2.508	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.300	- / 2.208	- / 2.508	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	-	7.193	7.599	Continuing	Continuing	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2830 / Afloat ATC Equipment	Modification Number / Title: 10 / AN/SPN-35 Block I (PN421)
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Modification Item 1 of 1: AN/SPN-35 Block I (PN421)

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-35 Block I

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	2 / 0.300
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.464	3 / 0.464
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.744	11 / 1.744
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.300	16 / 2.508

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	14	16
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	14	16

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control
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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
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.093	-	-	-	-	-	-	-	-	-	0.093
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Beginning in FY 2017, effort continues in OPN Line Item 2830, Afloat ATC Equipment

DESCRIPTION: Shipboard Air Traffic Control (SATC) systems are responsible for safe and expeditious control of air traffic within 50 Nautical Miles of a ship. SATC systems include the air traffic surveillance radar, AN/SPN-43, and the air traffic central tracking and control system, AN/TPX-42, which has two major configurations: Carrier Air Traffic Control Center-Direct Altitude and Identity Readout (CATCC-DAIR) and Amphibious Air Traffic Control Center-Direct Altitude and Identity Readout (AATCC-DAIR). Both DAIR systems use AN/SPN-43 and Identification Friend or Foe (IFF) inputs to track and control aircraft. Obsolescence problems are being addressed through various upgrades in a phased approach. The major upgrades include a series of AN/TPX-42 modification kits requiring various combinations of AN/JYK-44 processor rehost, track processor upgrade, AN/UYQ-70 console, audio recorder, flat panel display, and other components to bring the predecessor system to AN/TPX-42A(V)14 with field changes 1, 2, 3, 4, and 5 configuration and eventually to the Air Traffic Control Multifunction Console configuration. The AN/SPN-43 radar system is required for the service-life of CVN68-CVN77 & LHA/LHD class ships with no replacement system identified.

Installing Agent: Shipyards and Alteration Installation Teams.

When installation to be made: Selected Restricted Availability (SRA) / Restricted Availability (RAV).

Ships or facilities to receive the equipment: CVNs, LHD/LHAs, Software Support Activity (NAWCAD, St Inigoes, MD), Integrated Combat System Test Facility (San Diego, CA), Landing Systems Test Facility (NAWCAD, Patuxent River, MD), and training sites.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059) (Modernization)			- / 199.559	- / 9.366	- / 9.346	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 199.559	- / 9.366	- / 9.346	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059) (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 218.271
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 218.271

*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.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs that do not exceed \$5 million in either budget or \$10 million in three years. This exhibit summarizes procurement and installation for Cost Codes MP046, MP048, MP052, MP054, MP055, MP056, and MP059. Line item "Engineering Changes to Correct Deficiencies" captures unanticipated emergent engineering changes. Inventory Objectives (13) TPX-42 UPG, FC3 E Kit, (3) TPX-42 UPG G Kit, (29) TPX-42 UPG, FC4, (24) TPX-42 UPG FC5, (25) TPX-42 Embedded Trainer, (29) TPX-42 ECP Upgrades, (38) SPN-43 ECP Upgrades as set forth in the respective CNO letters authorizing each modification.

MP046 TPX-42 UPG, G Kit: Inventory objective is 3. All procurements and installations are funded through FY2016.

MP048 TPX-42 UPG, FC3 E Kit: Inventory objective is 13. All procurements and installations are funded through FY2016.

MP052 SPN-43 ECP Upgrades: Inventory objective is 38. 15 procurements and 9 installations are funded through FY2016. Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

MP054 TPX-42 UPG, FC4: Inventory objective is 29. 10 procurements and 4 installations are funded through FY2016. Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

MP055 TPX-42 UPG, FC5: Inventory objective is 24. 17 procurements and 14 installations are funded through FY016. Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

MP056 TPX-42 Embedded Trainer: Inventory objective is 25. 14 procurements and 8 installations are funded through FY2016. Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

MP059 TPX-42 ECP Upgrades: Inventory objective is 29. 8 procurements and 4 installations are funded through FY2016. Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control					Modification Number / Title: 1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)				
Models of Systems Affected: CVNs, L-class				Modification Type: Modernization				Related RDT&E PEs:						
Financial Plan	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		
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		
Procurement														
<i>Modification Item 1 of 1: SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)</i>														
B Kits														
Recurring														
1.1.1) (MP048) TPX-42 UPG, FC3 E Kit - NonOrganic	13 / 10.410	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 10.410		
1.1.3) (MP046) TPX-42 UPG, G Kit - NonOrganic	3 / 3.509	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 3.509		
1.1.4) (MP054) TPX-42 UPG, FC4 Recorders - NonOrganic	4 / 0.580	- / -	6 / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.880		
1.1.5) (MP055) TPX-42 UPG, FC5 - NonOrganic	10 / 1.223	4 / 1.917	3 / 1.467	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 4.607		
1.1.6) (MP056) TPX-42 Embedded Trainer - NonOrganic	4 / 0.255	4 / 0.354	6 / 0.526	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 1.135		
1.1.8) (MP059) TPX-42 ECP Upgrades - NonOrganic	- / -	4 / 1.378	4 / 1.406	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 2.784		
1.1.17) (MP052) SPN-43 ECP Upgrade - NonOrganic	6 / 3.720	3 / 0.805	6 / 1.638	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 6.163		
1.1.18) Prior Year Equipment - NonOrganic	115 / 146.439	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	115 / 146.439		
<i>Subtotal: Recurring</i>	<i>- / 166.136</i>	<i>- / 4.454</i>	<i>- / 5.337</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 175.927</i>		
<i>Subtotal: SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)</i>	<i>155 / 166.136</i>	<i>15 / 4.454</i>	<i>25 / 5.337</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>195 / 175.927</i>		
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 166.136</i>	<i>- / 4.454</i>	<i>- / 5.337</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 175.927</i>		
Support (All Modification Items)														
2.1) Engineering Changes to Correct Deficiencies	- / -	- / 0.350	- / 0.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.700		
2.2) Integrated Logistics Support	- / 2.930	- / 0.280	- / 0.280	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.490		
2.3) Production Engineering	- / 4.552	- / 0.364	- / 0.263	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.179		
2.4) Quality Assurance	- / 0.634	- / 0.050	- / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.734		
2.5) Acceptance Test & Evaluation	- / 0.198	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.198		
<i>Subtotal: Support</i>	<i>- / 8.314</i>	<i>- / 1.044</i>	<i>- / 0.943</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 10.301</i>		
Installation														
<i>Modification Item 1 of 1: SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)</i>	<i>- / 25.109</i>	<i>- / 3.868</i>	<i>- / 3.066</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 32.043</i>		
<i>Subtotal: Installation</i>	<i>- / 25.109</i>	<i>- / 3.868</i>	<i>- / 3.066</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 32.043</i>		
Total														

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

Models of Systems Affected: CVNs, L-class	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Total Cost (Procurement + Support + Installation)	199.559	9.366	9.346	-	-	-	-	-	-	-	-	218.271

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

Modification Item 1 of 1: SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 6

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

Installation Information

Method of Implementation: Field Change Install Team:: Installation Name: SATC Modernization Kit Summary

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	140 / 25.109	15 / 3.868	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	155 / 28.977
FY 2015	- / -	- / -	11 / 1.918	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.918
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	140 / 25.109	15 / 3.868	11 / 1.918	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	166 / 30.895

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	140	4	7	3	1	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166
Out	140	4	4	6	1	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	166

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2831 / Shipboard Air Traffic Control	Modification Number / Title: 1 / SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

Modification Item 1 of 1: SATC Modernization Kit Summary (MP046, MP048, MP052, MP054, MP055, MP056, MP059)

Installation Information

Method of Implementation: [none specified]:: Installation Name: (MP059) TPX-42 ECP Upgrades

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	4 / 1.148	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.148
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	4 / 1.148	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.148

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Out	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	112.838	21.357	21.281	-	-	-	-	-	-	-	-	155.476
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	112.838	21.357	21.281	-	-	-	-	-	-	-	-	155.476
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	112.838	21.357	21.281	-	-	-	-	-	-	-	-	155.476

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.461	1.014	-	-	-	-	-	-	-	-	1.475
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Beginning in FY 2017, effort continues in OPN Line Item 2830, Afloat ATC Equipment

The Automatic Carrier Landing System (ACLS) provides the primary precision electronic guidance for landing aircraft under all weather conditions on CVNs, LHAs, LHDs and selected Naval Air Stations. Many of the components in the system have been in service for more than twenty years. This program funds maintainability, reliability and supportability improvements to existing equipment components that can no longer be maintained and supported, as well as items providing upgraded operational capability. AN/SPN-46 Life Cycle Extension (LCE) sustainment efforts will be supplemented with other changes, as necessary, to offset obsolescence and supportability issues, the need for Commercial Off-The-Shelf (COTS) refresh, and to support system interface requirements. LCE efforts include Radar Control Group Unit 19, Embedded Global Positioning System and Inertial Navigation System (EGI) replacement, Computer Group replacement, Radar Receiver set replacement, Peripheral Display replacement, and Common Console replacement efforts. AN/SPN-41 LCE sustainment efforts will be supplemented with other changes, as necessary, to offset obsolescence and supportability issues and to support systems interface requirements. Additionally, the AN/SPN-41 system is the Joint Precision Approach and Landing System (JPALS) back-up system.

Installing Agent: Shipyards and Alteration Installation Teams (AITs).

Ships or facilities to receive equipment: CVNs, LHAs, LHDs, the In-Service Engineering Agent (ISEA-NAWCAD, St. Inigoes), selected shore sites and the training site.

Note: Prior year total amount only accounts for items funded in the current FYDP.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2832 / Automatic Carrier Landing System

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

Line Item MDAP/MAIS Code: N/A **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / ACLS MOD KITS SUMMARY PN408 (Modernization)			- / 37.072	- / 1.387	- / 7.238	- / -	- / -	- / -
P-3a	2 / AN/SPN-46 (V) 3 EGI PN411 (Reliability)			- / 6.155	- / 1.721	- / 0.332	- / -	- / -	- / -
P-3a	3 / AN/SPN-46 (V)3 Computer Group (LCE) PN412 (Reliability)			- / 5.195	- / 0.774	- / -	- / -	- / -	- / -
P-3a	4 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)			- / 14.202	- / 5.820	- / 7.778	- / -	- / -	- / -
P-3a	5 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414 (Reliability)			- / 6.046	- / 0.943	- / 1.044	- / -	- / -	- / -
P-3a	6 / AN/SPN-46 Common Console(V)3 LCE PN415 (Reliability)			- / 12.071	- / 1.346	- / -	- / -	- / -	- / -
P-3a	7 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)			- / 3.874	- / 0.776	- / 0.473	- / -	- / -	- / -
P-3a	8 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)			- / 8.576	- / 2.477	- / 1.224	- / -	- / -	- / -
P-3a	9 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)			- / 15.575	- / 3.991	- / 1.843	- / -	- / -	- / -
P-3a	10 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)			- / 4.072	- / 2.122	- / 1.349	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 112.838	- / 21.357	- / 21.281	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / ACLS MOD KITS SUMMARY PN408 (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 45.697
P-3a	2 / AN/SPN-46 (V) 3 EGI PN411 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 8.208
P-3a	3 / AN/SPN-46 (V)3 Computer Group (LCE) PN412 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 5.969
P-3a	4 / AN/SPN-46 (V)3 Radar Set Group PN413 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 27.800
P-3a	5 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 8.033
P-3a	6 / AN/SPN-46 Common Console(V)3 LCE PN415 (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 13.417
P-3a	7 / AN/SPN-41 Transmitter MOD (LCE) PN416 (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 5.123
P-3a	8 / AN/SPN-41 Coder Monitor (LCE) PN417 (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 12.277
P-3a	9 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418 (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 21.409
P-3a	10 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419 (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 7.543
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 155.476

*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:

Funding for FY2017 and beyond has been realigned to Afloat ATC Equipment (BLI 2830).

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 1 / ACLS MOD KITS SUMMARY PN408
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	37.072	1.387	7.238	-	-	-	-	-	-	-	-	45.697
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	37.072	1.387	7.238	-	-	-	-	-	-	-	-	45.697
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	37.072	1.387	7.238	-	-	-	-	-	-	-	-	45.697
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs for AN/SPN-35/41/46 systems. Line item "Engineering Changes to Correct Deficiencies" captures anticipated emergent engineering changes. PMA 213 configuration control board approves inventory objectives. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Afloat ATC Equipment BLI 2830. Contract and Delivery dates are various.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System					Modification Number / Title: 1 / ACLS MOD KITS SUMMARY PN408			
Models of Systems Affected: CVN's L-class, selected shore sites					Modification Type: Modernization					Related RDT&E PEs:			
Financial Plan													
	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408</i>													
B Kits													
Non-Recurring													
1.1.1) AN/SPN-46 TS-3098 - NonOrganic	16 / 1.670	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.670	
1.1.2) AN/SPN-41 XMTR MOD - NonOrganic	52 / 0.543	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	52 / 0.543	
1.1.3) AN/SPN-46 COTS Refresh - NonOrganic ⁽¹⁾	10 / 4.305	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 4.305	
1.1.4) AN/SPN-46 Obsolescence - NonOrganic	- / -	- / -	6 / 0.084	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.084	
1.1.5) AN/SPN-46 RAM Pole - NonOrganic	11 / 0.491	1 / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.526	
1.1.6) AN/SPN-46 Unit 13 MCG - NonOrganic	12 / 0.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.312	
1.1.7) AN/SPN-41 TILS System Integration (LCE) - NonOrganic	1 / 0.503	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.503	
1.1.8) AN/SPN-35 Shock Mod - NonOrganic	11 / 1.597	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.597	
1.1.9) AN/SPN-35 Antenna Stabilization - NonOrganic	15 / 0.711	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 0.711	
1.1.10) AN/SPN-35 UPS Mod - NonOrganic	10 / 0.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.424	
1.1.11) AN/SPN-35 Fiber Optic Mod - NonOrganic	7 / 0.081	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.081	
1.1.12) AN/SPN-35 ACD Mod - NonOrganic	5 / 0.003	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.003	
1.1.13) AN/SPN-35 XMTR Assembly - NonOrganic	4 / 0.819	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.819	
1.1.14) AN/SPN-35 Receiver Transmitter Mod - NonOrganic	2 / 0.028	3 / 0.084	4 / 0.112	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.224	
1.1.15) AN/SPN-46 Radar Control Group Backfit (LCE) - NonOrganic	1 / 0.205	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.205	
1.1.16) AN/SPN-46 TS-4176 - NonOrganic	- / -	2 / 0.400	4 / 0.803	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.203	
<i>Subtotal: Non-Recurring</i>	<i>- / 11.692</i>	<i>- / 0.519</i>	<i>- / 0.999</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.210</i>	
<i>Subtotal: ACLS MOD KITS SUMMARY PN408</i>	<i>157 / 11.692</i>	<i>6 / 0.519</i>	<i>14 / 0.999</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>177 / 13.210</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 11.692</i>	<i>- / 0.519</i>	<i>- / 0.999</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.210</i>	
Support (All Modification Items)													
2.1) Engineering Changes to Correct Deficiencies ECO SPN-46	- / 14.982	- / -	- / 0.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.197	
2.2) Engineering Changes to Correct Deficiencies ECO SPN-35	- / -	- / -	- / 0.459	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.459	
2.3) Integrated Logistics Support	- / 3.486	- / 0.168	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.404	
2.4) Production Engineering ⁽²⁾	- / 11.919	- / 0.474	- / 3.480	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 15.873	
2.5) Quality Assurance	- / 0.572	- / 0.012	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.684	
2.6) Acceptance, Test and Evaluation	- / 0.211	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.211	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9 **P-1 Line Item Number / Title:** 2832 / Automatic Carrier Landing System **Modification Number / Title:** 1 / ACLS MOD KITS SUMMARY PN408

Models of Systems Affected: CVN's L-class, selected shore sites **Modification Type:** Modernization **Related RDT&E PEs:**

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
2.7) Initial Training	- / -	- / 0.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040
<i>Subtotal: Support</i>	- / 21.170	- / 0.694	- / 5.004	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.868
Installation												
<i>Modification Item 1 of 1:</i> ACLS MOD KITS SUMMARY PN408	- / 4.210	- / 0.174	- / 1.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.619
<i>Subtotal: Installation</i>	- / 4.210	- / 0.174	- / 1.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.619
Total												
Total Cost (Procurement + Support + Installation)	37.072	1.387	7.238	-	-	-	-	-	-	-	-	45.697

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 1 / ACLS MOD KITS SUMMARY PN408

Modification Item 1 of 1: ACLS MOD KITS SUMMARY PN408

Manufacturer Information

Manufacturer Name: NAWCAD ⁽³⁾	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Dec 2015	Dec 2016					

Installation Information

Method of Implementation: AIT Alteration Installation Team:: Installation Name: ACLS MOD KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	143 / 4.210	14 / 0.174	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	157 / 4.384
FY 2015	- / -	- / -	6 / 0.285	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.285
FY 2016	- / -	- / -	- / 0.950	14 / -	- / -	14 / -	- / -	- / -	- / -	- / -	- / -	14 / 0.950
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	143 / 4.210	14 / 0.174	6 / 1.235	14 / -	- / -	14 / -	- / -	- / -	- / -	- / -	- / -	177 / 5.619

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	143	-	5	9	-	1	2	3	-	4	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177
Out	143	-	5	9	-	1	2	3	-	4	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177

Footnotes:

(1) The variance in Install Costs from year to year is due to the makeup of the different equipment being installed each year and the hulls where the installs are happening are different. The location of the different installs and projected Design Services Allocation (DSA) costs associated with each install also factor in the increase. FY2016 cost was realigned to support Production Engineering.

(2) Several SPN-46 subassemblies are rapidly becoming unsustainable due primarily to component obsolescence. Increased production engineering will be required in support of future, approved ECP efforts to mitigate these issues and keep the SPN-46 viable to support Warfighter ACLS operations. Realignment of \$1.920M for AN/SPN-46 Block Upgrade in FY16 from cost code 1.1.3

(3) Advance Planning Cost in FY2016 occurs prior to actual installs and shows as quantity zero. Contract and delivery dates are various. 14 installations in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 2 / AN/SPN-46 (V) 3 EGI PN411				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.155	1.721	0.332	-	-	-	-	-	-	-	-	8.208
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.155	1.721	0.332	-	-	-	-	-	-	-	-	8.208
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.155	1.721	0.332	-	-	-	-	-	-	-	-	8.208
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The ASN/139 Carrier Aircraft Inertial Navigation System (CAINS) units used by the AN/SPN-46 (V) as ships motion sensors (P/O Units 17/18) are nearing the end of their service life and are being replaced in the fleet by the ASN/172 Embedded GPS and Inertial Navigation System (EGI). The CAINS units require periodic updates of latitude and longitude that the AN/SPN-46 obtains from GPS receivers in unit 17/18. The EGI ECP will provide supportable sensors for the AN/SPN-46 (V) until the 2020 time frame and allow for the elimination of the GPS receivers in units 17 and 18. The inventory objective for this item is thirteen, of which twelve are OPN-funded and one SCN-funded. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System					Modification Number / Title: 2 / AN/SPN-46 (V) 3 EGI PN411			
Models of Systems Affected: CVNs, L-class, selected shore sites					Modification Type: Reliability					Related RDT&E PEs:			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> AN/SPN-46 (V) 3 EGI PN411													
B Kits													
Recurring													
2.1.1) AN/SPN-46(V)3 EGI (LCE) PN411 - NonOrganic	10 / 1.821	2 / 0.327	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 2.148	
<i>Subtotal: Recurring</i>	- / 1.821	- / 0.327	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.148	
<i>Subtotal: AN/SPN-46 (V) 3 EGI PN411</i>	10 / 1.821	2 / 0.327	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 2.148	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.821	- / 0.327	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.148	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / 0.794	- / 0.047	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.841	
3.2) Production Engineering	- / 2.028	- / 0.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.407	
3.3) Quality Assurance	- / 0.062	- / 0.015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.077	
3.4) Initial Training	- / 0.107	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.107	
3.5) Acceptance Test & Evaluation	- / 0.321	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.321	
<i>Subtotal: Support</i>	- / 3.312	- / 0.441	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.753	
Installation													
<i>Modification Item 1 of 1:</i> AN/SPN-46 (V) 3 EGI PN411	- / 1.022	- / 0.953	- / 0.332	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.307	
<i>Subtotal: Installation</i>	- / 1.022	- / 0.953	- / 0.332	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.307	
Total													
Total Cost (Procurement + Support + Installation)	6.155	1.721	0.332	-	-	-	-	-	-	-	-	8.208	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 3 / AN/SPN-46 (V)3 Computer Group (LCE) PN412				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.195	0.774	-	-	-	-	-	-	-	-	-	5.969
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.195	0.774	-	-	-	-	-	-	-	-	-	5.969
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.195	0.774	-	-	-	-	-	-	-	-	-	5.969
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. In response to the increasingly difficult-to-maintain and antiquated CMS 2 software language and to preclude any degradation to the functionality of AN/SPN-46(V)3 in the Fleet by 2010, the CMS2 software language will be converted to mature, higher order language (HOL) C. This effort will leverage the new Radar Control Group (RCG) open architecture by re-hosting the HOL C software on a new Versa Module Eurocard (VME) circuit card that will reside in the Unit 19 VME chassis. The obsolete AN/AYK-14 computers, which currently reside in units 17 and 18, will be eliminated, providing additional space for Maintenance Assistance Modules (MAMs) storage. The inventory objective for this item is thirteen, of which ten are OPN-funded, two are RDT&E and one SCN-funded. PMA-213 configuration control board approves inventory objectives.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 3 / AN/SPN-46 (V)3 Computer Group (LCE) PN412

Models of Systems Affected: CVNs, L-class, selected shore sites	Modification Type: Reliability	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Computer Group (LCE) PN412</i>												
B Kits												
Recurring												
2.1.1) AN/SPN-46 Computer Group - NonOrganic	10 / 2.031	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.031
<i>Subtotal: Recurring</i>	- / 2.031	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.031
<i>Subtotal: AN/SPN-46 (V)3 Computer Group (LCE) PN412</i>	10 / 2.031	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.031
<i>Subtotal: Procurement, All Modification Items</i>	- / 2.031	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.031
Support (All Modification Items)												
3.1) Integrated Logistic Support	- / 0.326	- / 0.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.358
3.2) Production Engineering ⁽⁶⁾	- / 0.733	- / 0.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.985
3.3) Quality Assurance	- / 0.027	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.027
3.4) Initial Training	- / 0.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.045
<i>Subtotal: Support</i>	- / 1.131	- / 0.284	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.415
Installation												
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Computer Group (LCE) PN412</i>	- / 2.033	- / 0.490	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.523
<i>Subtotal: Installation</i>	- / 2.033	- / 0.490	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.523
Total												
Total Cost (Procurement + Support + Installation)	5.195	0.774	-	-	-	-	-	-	-	-	-	5.969

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 3 / AN/SPN-46 (V)3 Computer Group (LCE) PN412

Modification Item 1 of 1: AN/SPN-46 (V)3 Computer Group (LCE) PN412

Manufacturer Information

Manufacturer Name: NAWCAD	Manufacturer Location: Patuxent River, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Alteration Installation Team (AIT):: Installation Name: AN/SPN-46 Computer Group

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 2.033	2 / 0.490	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	10 / 2.523
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 2.033	2 / 0.490	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.523

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	8	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	8	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

Footnotes:
⁽⁵⁾ The remaining support activities are necessary to adapt the installations to the specific requirements of each ship. This includes site unique installation drawings which are generated with the input and support of the system Subject Matter Experts.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 4 / AN/SPN-46 (V)3 Radar Set Group PN413				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	14.202	5.820	7.778	-	-	-	-	-	-	-	-	27.800
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	14.202	5.820	7.778	-	-	-	-	-	-	-	-	27.800
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	14.202	5.820	7.778	-	-	-	-	-	-	-	-	27.800
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The current AN/SPN-46 (V) 3 receiver houses both Ka and X-band components that are densely packaged. Maintenance on these units is difficult with a high probability of damaging components because of this dense packaging. Some of the RF components are 1960s technology and are no longer manufactured. The Radar Set Group re-packages the RF components using more modern and smaller components thus making the unit much easier to maintain and support. The inventory objective for this item is thirteen, of which eleven are OPN-funded and two SCN-funded. PMA-213 configuration control board approves inventory objectives.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System						Modification Number / Title: 4 / AN/SPN-46 (V)3 Radar Set Group PN413			
Models of Systems Affected: CVNs and selected shore sites				Modification Type: Reliability						Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Radar Set Group PN413</i>													
B Kits													
Recurring													
2.1.1) AN/SPN-46 (V)3 Radar Set Group PN413 - NonOrganic ⁽⁶⁾	1 / 8.440	2 / 2.467	3 / 4.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 14.958	
<i>Subtotal: Recurring</i>	- / 8.440	- / 2.467	- / 4.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.958	
<i>Subtotal: AN/SPN-46 (V)3 Radar Set Group PN413</i>	1 / 8.440	2 / 2.467	3 / 4.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 14.958	
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.440	- / 2.467	- / 4.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.958	
Support (All Modification Items)													
3.1) Integrated Logistic Support	- / 0.426	- / 0.230	- / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.706	
3.2) Production Engineering	- / 4.615	- / 2.853	- / 1.988	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.456	
3.3) Acceptance Test & Evaluation	- / 0.325	- / 0.212	- / 0.221	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.758	
3.4) Quality Assurance	- / 0.083	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.083	
3.5) Initial Training	- / 0.105	- / 0.045	- / 0.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.195	
<i>Subtotal: Support</i>	- / 5.554	- / 3.340	- / 2.304	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.198	
Installation													
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Radar Set Group PN413</i>	- / 0.208	- / 0.013	- / 1.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.644	
<i>Subtotal: Installation</i>	- / 0.208	- / 0.013	- / 1.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.644	
Total													
Total Cost (Procurement + Support + Installation)	14.202	5.820	7.778	-	-	-	-	-	-	-	-	27.800	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 4 / AN/SPN-46 (V)3 Radar Set Group PN413

Modification Item 1 of 1: AN/SPN-46 (V)3 Radar Set Group PN413

Manufacturer Information

Manufacturer Name: NAWCAD				Manufacturer Location: Patuxent River, MD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Dec 2015	Dec 2016					

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-46 (V)3 Radar Set Group PN413

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.208	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.208
FY 2015	- / -	- / 0.013	2 / 1.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.436
FY 2016	- / -	- / -	- / -	3 / -	- / -	3 / -	- / -	- / -	- / -	- / -	- / -	3 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.208	- / 0.013	2 / 1.423	3 / -	- / -	3 / -	- / -	- / -	- / -	- / -	- / -	6 / 1.644

Installation Schedule

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

Footnotes:

⁽⁶⁾ Advance Planning Cost in FY 15 occurs prior to actual installs and shows as quantity zero. AN/SPN-46 (V)3 Radar Set Group inventory objective is (11) with 6 procurements and 3 installations occurring in PY - FY16 with BLI 2832 and 5 procurements and 8 installation for FY17 - FY21 funded in BLI 2830. 3 installations in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 5 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.046	0.943	1.044	-	-	-	-	-	-	-	-	8.033
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.046	0.943	1.044	-	-	-	-	-	-	-	-	8.033
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.046	0.943	1.044	-	-	-	-	-	-	-	-	8.033
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The peripheral upgrade ECP replaces the fixed format displays with programmable displays eliminating the Standard Electronic Module (SEM) and providing total flexibility in format and content of displayed data. The inventory objective for this item is fifteen, of which thirteen are OPN-funded and two SCN-funded. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System						Modification Number / Title: 5 / AN/SPN-46 (V)3 Peripheral Display (LCE) PN414			
Models of Systems Affected: CVNs and selected shore sites				Modification Type: Reliability						Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414</i>													
B Kits													
Recurring													
2.1.1) AN/SPN-46(V)3 Peripheral Display (LCE) - NonOrganic ⁽⁷⁾	11 / 1.721	- / -	2 / 0.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 2.057	
<i>Subtotal: Recurring</i>	- / 1.721	- / -	- / 0.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.057	
<i>Subtotal: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414</i>	11 / 1.721	- / -	2 / 0.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 2.057	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.721	- / -	- / 0.336	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.057	
Support (All Modification Items)													
3.1) Integrated Logistic Support	- / 0.392	- / 0.037	- / 0.038	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.467	
3.2) Production Engineering	- / 2.430	- / 0.258	- / 0.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.953	
3.3) Quality Assurance	- / 0.057	- / 0.009	- / 0.009	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.075	
3.4) Initial Training	- / 0.125	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.125	
<i>Subtotal: Support</i>	- / 3.004	- / 0.304	- / 0.312	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.620	
Installation													
<i>Modification Item 1 of 1: AN/SPN-46 (V)3 Peripheral Display (LCE) PN414</i>	- / 1.321	- / 0.639	- / 0.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.356	
<i>Subtotal: Installation</i>	- / 1.321	- / 0.639	- / 0.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.356	
Total													
Total Cost (Procurement + Support + Installation)	6.046	0.943	1.044	-	-	-	-	-	-	-	-	8.033	

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 6 / AN/SPN-46 Common Console(V)3 LCE PN415				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	12.071	1.346	-	-	-	-	-	-	-	-	-	13.417
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	12.071	1.346	-	-	-	-	-	-	-	-	-	13.417
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	12.071	1.346	-	-	-	-	-	-	-	-	-	13.417
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment and installation costs on this P-3a are for individual modification programs. This modification is part of the AN/SPN-46(V)3 Life Cycle Extension program. The console replacements for one maintenance and two operator AN/SPN-46(V)3 consoles will have the same functionality and capability as the existing fielded consoles. Current consoles are the number two top readiness system degraders and consistently appear in the top 10 Commander Naval Air Pacific (CNAP) Casualty Report (CASREP) List. The replacement consoles, a variant of the OD-22/TPX-42(V) Field Change 3 (FC3) console, readily support HOL C and CMS 2 languages. This ensures that replacement consoles are available for ships that require the console upgrade, before the CMS 2 to C Software upgrade is available for installation. AIR 4.5.8 and AIR 4.5.9 formed a Working Integrated Product Team (WIPT) to ensure open communication and a smooth flow of information during Console Replacement ECP execution. The inventory objective for this item is twelve, of which eleven are OPN-funded and one SCN-funded. PMA-213 configuration control board approves inventory objectives.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System						Modification Number / Title: 6 / AN/SPN-46 Common Console(V)3 LCE PN415			
Models of Systems Affected: CVNs and selected shore sites				Modification Type: Reliability						Related RDT&E PEs:			
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AN/SPN-46 Common Console(V)3 LCE PN415</i>													
B Kits													
Recurring													
2.1.1) AN/SPN-46(V)3 Common Console (LCE) PN415 - NonOrganic	11 / 6.709	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 6.709	
<i>Subtotal: Recurring</i>	<i>- / 6.709</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.709</i>	
<i>Subtotal: AN/SPN-46 Common Console(V)3 LCE PN415</i>	<i>11 / 6.709</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>11 / 6.709</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 6.709</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.709</i>	
Support (All Modification Items)													
3.1) Integrated Logistic Support	- / 0.421	- / 0.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.453	
3.2) Production Engineering	- / 1.063	- / 0.251	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.314	
3.3) Quality Assurance	- / 0.079	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.079	
3.4) Initial Training	- / 0.091	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.091	
<i>Subtotal: Support</i>	<i>- / 1.654</i>	<i>- / 0.283</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.937</i>	
Installation													
<i>Modification Item 1 of 1: AN/SPN-46 Common Console(V)3 LCE PN415</i>	<i>- / 3.708</i>	<i>- / 1.063</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 4.771</i>	
<i>Subtotal: Installation</i>	<i>- / 3.708</i>	<i>- / 1.063</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 4.771</i>	
Total													
Total Cost (Procurement + Support + Installation)	12.071	1.346	-	-	-	-	-	-	-	-	-	13.417	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 6 / AN/SPN-46 Common Console(V)3 LCE PN415

Modification Item 1 of 1: AN/SPN-46 Common Console(V)3 LCE PN415

Manufacturer Information

Manufacturer Name: NAWCAD				Manufacturer Location: Patuxent River, MD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Alteration Installation Team (AIT):: Installation Name: AN/SPN-46(V)3 Common Console (LCE) PN415

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 3.708	3 / 1.063	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	11 / 4.771
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 3.708	3 / 1.063	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 4.771

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
In	8	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Out	8	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 7 / AN/SPN-41 Transmitter MOD (LCE) PN416				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.874	0.776	0.473	-	-	-	-	-	-	-	-	5.123
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.874	0.776	0.473	-	-	-	-	-	-	-	-	5.123
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.874	0.776	0.473	-	-	-	-	-	-	-	-	5.123
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Transmitter MOD (LCE) PN416. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-034 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension (LCE) program. The existing transmitter is an older technology two-channel SCR line type modulator that is experiencing serious maintainability and obsolescence issues. The transmitter is the number one cost driver and system performance degrader. This change will improve logistic supportability and system maintainability. Lowest Repairable Units (LRUs) CCAs and Built-In Test (BIT) capabilities (LCE only) will be added to transmitter thus reducing cost for shipboard repairs and maintenance. The inventory objective for this item is nineteen, of which nineteen are OPN funded. PMA-213 configuration board approves inventory objective.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 7 / AN/SPN-41 Transmitter MOD (LCE) PN416

Models of Systems Affected: CVN's L-Class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Transmitter MOD (LCE) PN416												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Transmitter Replacement (LCE) - NonOrganic ⁽⁹⁾	9 / 2.155	2 / 0.480	1 / 0.244	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 2.879
<i>Subtotal: Recurring</i>	- / 2.155	- / 0.480	- / 0.244	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.879
<i>Subtotal: AN/SPN-41 Transmitter MOD (LCE) PN416</i>	9 / 2.155	2 / 0.480	1 / 0.244	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 2.879
<i>Subtotal: Procurement, All Modification Items</i>	- / 2.155	- / 0.480	- / 0.244	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.879
Support (All Modification Items)												
3.1) Integrated Logistics	- / 0.259	- / 0.078	- / 0.032	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.369
3.2) Production Engineering	- / 1.303	- / 0.151	- / 0.146	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.600
<i>Subtotal: Support</i>	- / 1.562	- / 0.229	- / 0.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.969
Installation												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Transmitter MOD (LCE) PN416	- / 0.157	- / 0.067	- / 0.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.275
<i>Subtotal: Installation</i>	- / 0.157	- / 0.067	- / 0.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.275
Total												
Total Cost (Procurement + Support + Installation)	3.874	0.776	0.473	-	-	-	-	-	-	-	-	5.123

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 7 / AN/SPN-41 Transmitter MOD (LCE) PN416

Modification Item 1 of 1: AN/SPN-41 Transmitter MOD (LCE) PN416

Manufacturer Information

Manufacturer Name: NAWCAD 4.5.8	Manufacturer Location: Webster Field, St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Dec 2015	Dec 2016					

Installation Information

Method of Implementation: AIT Alteration Team:: Installation Name: AN/SPN-41 Transmitter Replacement

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 0.157	5 / 0.067	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 0.224
FY 2015	- / -	- / -	2 / 0.051	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.051
FY 2016	- / -	- / -	- / -	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	1 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 0.157	5 / 0.067	2 / 0.051	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	12 / 0.275

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	4	-	-	5	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
Out	4	-	-	5	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12

Footnotes:
⁽⁹⁾ AN/SPN-41 Transmitter MOD(LCE)inventory objective is (19) with 14 procurements and 13 installations occurring in PY - FY16 funded in BLI 2832 and 5 procurements and 6 installations occurring in FY17 - FY21 are funded in BLI 2830. 1 installation in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 8 / AN/SPN-41 Coder Monitor (LCE) PN417				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	8.576	2.477	1.224	-	-	-	-	-	-	-	-	12.277
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	8.576	2.477	1.224	-	-	-	-	-	-	-	-	12.277
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	8.576	2.477	1.224	-	-	-	-	-	-	-	-	12.277
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Coder Monitor (LCE) PN417. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-030 and SPN41-031 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension program. This change will provide upgrades to AN/SPN-41/41A to improve Operational Availability (Ao) by addressing numerous part obsolescence issues germane to the current aging system. The change will also provide digital interfaces with other shipboard systems including the Joint Precision Approach Landing System (JPALS), and extend the service life of the AN/SPN-41/41A. The inventory objective for this item is twenty-two. PMA-213 configuration board approves inventory objective.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 8 / AN/SPN-41 Coder Monitor (LCE) PN417

Models of Systems Affected: CVN's L-Class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Coder Monitor (LCE) PN417												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Coder Monitor (LCE) - NonOrganic (10)	14 / 3.278	5 / 0.591	1 / 0.201	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 4.070
<i>Subtotal: Recurring</i>	- / 3.278	- / 0.591	- / 0.201	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.070
<i>Subtotal: AN/SPN-41 Coder Monitor (LCE) PN417</i>	14 / 3.278	5 / 0.591	1 / 0.201	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	20 / 4.070
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.278	- / 0.591	- / 0.201	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.070
Support (All Modification Items)												
3.1) Integrated Logistic Support	- / 0.978	- / 0.114	- / 0.111	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.203
3.2) Production Engineering	- / 2.377	- / 0.176	- / 0.182	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.735
<i>Subtotal: Support</i>	- / 3.355	- / 0.290	- / 0.293	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.938
Installation												
<i>Modification Item 1 of 1:</i> AN/SPN-41 Coder Monitor (LCE) PN417	- / 1.943	- / 1.596	- / 0.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.269
<i>Subtotal: Installation</i>	- / 1.943	- / 1.596	- / 0.730	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.269
Total												
Total Cost (Procurement + Support + Installation)	8.576	2.477	1.224	-	-	-	-	-	-	-	-	12.277

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 8 / AN/SPN-41 Coder Monitor (LCE) PN417

Modification Item 1 of 1: AN/SPN-41 Coder Monitor (LCE) PN417

Manufacturer Information

Manufacturer Name: NAWCAD 4.5.8	Manufacturer Location: Webster Field, St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Dec 2015	Dec 2016					

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Coder Monitor (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9 / 1.943	4 / 1.596	1 / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	14 / 3.659
FY 2015	- / -	- / -	5 / 0.610	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.610
FY 2016	- / -	- / -	- / -	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	1 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	9 / 1.943	4 / 1.596	6 / 0.730	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	20 / 4.269

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	9	-	-	2	2	1	-	5	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Out	9	-	-	2	2	1	-	5	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20

Footnotes:

⁽¹⁰⁾ AN/SPN-41 Coder Monitor (LCE) inventory objective is (22) with 20 procurements and 19 installations occurring in PY - FY16 are funded in BLI 2832 and 2 procurements and 3 installations occurring in FY17 - FY21 are funded BLI 2830. 1 installation in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 9 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	15.575	3.991	1.843	-	-	-	-	-	-	-	-	21.409
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	15.575	3.991	1.843	-	-	-	-	-	-	-	-	21.409
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	15.575	3.991	1.843	-	-	-	-	-	-	-	-	21.409
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Electronic Drawer Assembly (LCE) PN418. The equipment and installation costs on this P-3a are for individual modification programs though it must be installed in conjunction with ECP SPN41-031 and SPN41-034 in order to be fully functional as part of the AN/SPN-41/41A Life Cycle Extension program. This change will provide upgrades to AN/SPN-41/41A to improve Operational Availability (Ao) by addressing numerous part obsolescence issues germane to the current aging system. The change will also provide digital interfaces with other shipboard systems including the Joint Precision Approach Landing System (JPALS), and extend the service life of the AN/SPN-41/41A. The inventory objective for this item is nineteen. PMA-213 configuration board approves inventory objective.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 9 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Models of Systems Affected: CVNs, L-class, selected shore sites	Modification Type: Modernization	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

<i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418												
B Kits												
Recurring												
2.1.1) AN/SPN-41 Electronic Drawer Assembly (LCE) - NonOrganic ⁽¹¹⁾	9 / 3.487	5 / 1.842	1 / 0.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 5.708
<i>Subtotal: Recurring</i>	- / 3.487	- / 1.842	- / 0.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.708
<i>Subtotal: AN/SPN-41 Electronic Drawer Assembly (LCE) PN418</i>	9 / 3.487	5 / 1.842	1 / 0.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 5.708
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.487	- / 1.842	- / 0.379	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.708

Support (All Modification Items)

3.1) Integrated Logistics	- / 1.506	- / 0.113	- / 0.110	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.729
3.2) Production Engineering ⁽¹²⁾	- / 8.251	- / 0.373	- / 0.753	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.377
<i>Subtotal: Support</i>	- / 9.757	- / 0.486	- / 0.863	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.106

Installation

<i>Modification Item 1 of 1:</i> AN/SPN-41 Electronic Drawer Assembly (LCE) PN418	- / 2.331	- / 1.663	- / 0.601	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.595
<i>Subtotal: Installation</i>	- / 2.331	- / 1.663	- / 0.601	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.595

Total												
Total Cost (Procurement + Support + Installation)	15.575	3.991	1.843	-	-	-	-	-	-	-	-	21.409

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 9 / AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Modification Item 1 of 1: AN/SPN-41 Electronic Drawer Assembly (LCE) PN418

Manufacturer Information

Manufacturer Name: NAWCAD 4.5.8 ⁽¹³⁾				Manufacturer Location: Webster Field, St. Inigoes, MD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Dec 2015	Dec 2016					

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Electronic Drawer Assembly (LCE)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 2.331	4 / 1.663	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 3.994
FY 2015	- / -	- / -	5 / 0.601	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.601
FY 2016	- / -	- / -	- / -	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	1 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 2.331	4 / 1.663	5 / 0.601	1 / -	- / -	1 / -	- / -	- / -	- / -	- / -	- / -	15 / 4.595

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	5	-	-	4	-	-	-	3	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15		
Out	5	-	-	4	-	-	-	3	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15			

Footnotes:
⁽¹¹⁾ AN/SPN-41 Electronic Drawer Assembly (LCE) inventory objective is (19) with 15 procurements and 14 installations occurring in PY - FY16 are funded in BLI 2832 and 4 procurements and 5 installations occurring in FY17 - FY21 are funded in BLI 2830. 1 installation in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)
⁽¹²⁾ FY16 Production Engineering costs are higher due to planning and preparation for the installation in Yokosuka, Japan.
⁽¹³⁾ The higher FY15 installation costs reflect more expensive ship locations (i.e. San Diego, CA or Japan versus Norfolk, VA)

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System				Modification Number / Title: 10 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	4.072	2.122	1.349	-	-	-	-	-	-	-	-	7.543
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	4.072	2.122	1.349	-	-	-	-	-	-	-	-	7.543
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	4.072	2.122	1.349	-	-	-	-	-	-	-	-	7.543
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

AN/SPN-41 Radome Hardware Upgrade (LCE) PN419. The equipment and installation costs on this P-3a are for individual modification programs. This is part of the AN/SPN-41/41A Life Cycle Extension program. This change will improve overall AN/SPN-41/41A Operational Availability (Ao) by addressing extreme environmental issues currently being experienced by the systems in the field. This change increases overall thermal resistance while decreasing solar absorptivity thereby reducing the ambient operating temperature for the equipment inside the radome. The inventory objective for this item is seventeen. PMA-213 configuration board approves inventory objective.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System						Modification Number / Title: 10 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419			
Models of Systems Affected: CVN's, L-Class, selected shore sites				Modification Type: Modernization				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419</i>													
B Kits													
Recurring													
2.1.1) AN/SPN-41 Radome Hardware Upgrade - NonOrganic ⁽¹⁴⁾	7 / 2.163	4 / 1.585	2 / 0.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 4.564	
<i>Subtotal: Recurring</i>	- / 2.163	- / 1.585	- / 0.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.564	
<i>Subtotal: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419</i>	7 / 2.163	4 / 1.585	2 / 0.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 4.564	
<i>Subtotal: Procurement, All Modification Items</i>	- / 2.163	- / 1.585	- / 0.816	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.564	
Support (All Modification Items)													
3.1) Production Engineering	- / 1.639	- / 0.335	- / 0.325	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.299	
3.2) Integrated Logistics	- / -	- / 0.032	- / 0.033	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.065	
<i>Subtotal: Support</i>	- / 1.639	- / 0.367	- / 0.358	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.364	
Installation													
<i>Modification Item 1 of 1: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419</i>	- / 0.270	- / 0.170	- / 0.175	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.615	
<i>Subtotal: Installation</i>	- / 0.270	- / 0.170	- / 0.175	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.615	
Total													
Total Cost (Procurement + Support + Installation)	4.072	2.122	1.349	-	-	-	-	-	-	-	-	7.543	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2832 / Automatic Carrier Landing System	Modification Number / Title: 10 / AN/SPN-41 Radome Hardware Upgrade (LCE) PN419

Modification Item 1 of 1: AN/SPN-41 Radome Hardware Upgrade (LCE) PN419

Manufacturer Information

Manufacturer Name: NAWCAD 4.5.8 ⁽¹⁵⁾	Manufacturer Location: Webster Field, St. Inigoes, MD
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 7

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Jul 2015	Jul 2016					

Installation Information

Method of Implementation: Alteration Installation Team AIT:: Installation Name: AN/SPN-41 Radome Hardware Upgrade

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 0.270	3 / 0.170	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	7 / 0.440
FY 2015	- / -	- / -	4 / 0.175	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.175
FY 2016	- / -	- / -	- / -	2 / -	- / -	2 / -	- / -	- / -	- / -	- / -	- / -	2 / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 0.270	3 / 0.170	4 / 0.175	2 / -	- / -	2 / -	- / -	- / -	- / -	- / -	- / -	13 / 0.615

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
In	4	3	-	-	-	1	2	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Out	4	3	-	-	-	1	2	1	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13

Footnotes:
⁽¹⁴⁾ AN/SPN-41 Radome Hardware Upgrade inventory objective is (17) with 13 procurements and 11 installations occurring in PY - FY16 are funded in BLI 2832 and 4 procurements and 6 installations occurring between FY17 - FY21 are funded in BLI 2830. 2 installations in FY 17 funded in Line Item 2830 (Afloat ATC Equipment)
⁽¹⁵⁾ FY15 install costs are higher than FY16 based on install location.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2840 / National Air Space System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 537	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	330.525	26.639	25.621	-	-	-	-	-	-	-	-	382.785
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	330.525	26.639	25.621	-	-	-	-	-	-	-	-	382.785
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	330.525	26.639	25.621	-	-	-	-	-	-	-	-	382.785

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.973	3.323	-	-	-	-	-	-	-	-	4.296
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Joint DoD/Federal Aviation Administration (FAA) National Airspace System (NAS) Modernization (MOD) program upgrades the DoD Air Traffic Control (ATC) systems at Approach Control Facilities in concert with the FAA's upgrade of the National ATC System. These funds will procure ATC systems for the Navy/Marine ATC facilities.

The Air Force is the DoD lead activity for the Joint Acquisition Program. The Joint Program Office is located at Hanscom AFB, MA.

The NAS Mod program received a full rate production decision on 7 June 2005 and is in the production and deployment phase following Milestone C.

*Prior years total includes funding associated with cost elements no longer funded by this program.

Funding for procurements, support costs and associated installs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2840 / National Air Space System

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

Line Item MDAP/MAIS Code: 537 **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)			- / 120.803	- / 3.491	- / 4.118	- / -	- / -	- / -
P-3a	2 / CB-030 Digital Airport Surveillance Radar (DASR) (Added Capability)			- / 150.940	- / 2.030	- / 2.125	- / -	- / -	- / -
P-3a	3 / CB040 Tower Automation System (TAS) (Added Capability)			- / 56.107	- / 3.742	- / 1.700	- / -	- / -	- / -
P-3a	4 / CB050 STARS TECH Refresh Upgrade (AIT)			- / 1.997	- / 10.806	- / 8.399	- / -	- / -	- / -
P-3a	5 / CB060 DASR Tech Refresh Upgrade (Added Capability)			- / 0.628	- / 1.163	- / 1.186	- / -	- / -	- / -
P-3a	6 / CB070 TAS Tech Refresh (Added Capability)			- / 0.050	- / 1.649	- / 4.200	- / -	- / -	- / -
P-3a	7 / CB080 NAS Voice System (NVS) (Added Capability)			- / 0.000	- / 3.758	- / 3.893	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 330.525	- / 26.639	- / 25.621	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / CB010 - DoD Advanced Automation System (DAAS) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 128.412
P-3a	2 / CB-030 Digital Airport Surveillance Radar (DASR) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 155.095
P-3a	3 / CB040 Tower Automation System (TAS) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 61.549
P-3a	4 / CB050 STARS TECH Refresh Upgrade (AIT)			- / -	- / -	- / -	- / -	- / -	- / 21.202
P-3a	5 / CB060 DASR Tech Refresh Upgrade (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 2.977
P-3a	6 / CB070 TAS Tech Refresh (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 5.899
P-3a	7 / CB080 NAS Voice System (NVS) (Added Capability)			- / -	- / -	- / -	- / -	- / -	- / 7.651
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 382.785

*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 Federal Aviation Administration (FAA) began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information to augment ground-based radar. Existing DoD Air Traffic Control (ATC) facilities interface with FAA's facilities, therefore the military must maintain interoperability and retain vital special-use airspace for combat readiness training. The DoD Advanced Automation System must be upgraded to meet this requirement.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 1 / CB010 - DoD Advanced Automation System (DAAS)				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	120.803	3.491	4.118	-	-	-	-	-	-	-	-	128.412
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	120.803	3.491	4.118	-	-	-	-	-	-	-	-	128.412
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	120.803	3.491	4.118	-	-	-	-	-	-	-	-	128.412
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The DoD Advanced Automation System (DAAS) is being developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The systems are installed in Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements. DAAS provides for processors and displays for tower and approach controls.

Inventory objective is 47 DAAS. 44 procurements and 43 installations are funded through FY2016. Funding for remaining 3 procurements and 4 installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2840 / National Air Space System					Modification Number / Title: 1 / CB010 - DoD Advanced Automation System (DAAS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB010 - DoD Advanced Automation System (DAAS)													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽¹⁾	42 / 44.479	1 / 0.626	1 / 0.895	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	44 / 46.000	
2.1.2) ECP/OCIR - Organic ⁽²⁾	- / 2.332	- / 0.950	- / 0.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.032	
<i>Subtotal: Recurring</i>	<i>- / 46.811</i>	<i>- / 1.576</i>	<i>- / 1.645</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 50.032</i>	
Non-Recurring													
2.2.1) Training Equipment - Organic	3 / 1.726	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.726	
<i>Subtotal: Non-Recurring</i>	<i>- / 1.726</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.726</i>	
<i>Subtotal: CB010 - DoD Advanced Automation System (DAAS)</i>	<i>45 / 48.537</i>	<i>1 / 1.576</i>	<i>1 / 1.645</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>47 / 51.758</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 48.537</i>	<i>- / 1.576</i>	<i>- / 1.645</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 51.758</i>	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / 3.163	- / 0.120	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.383	
3.2) Production Engineering ⁽³⁾	- / 21.729	- / 0.670	- / 0.838	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 23.237	
3.3) Initial Training	- / 0.255	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.255	
<i>Subtotal: Support</i>	<i>- / 25.147</i>	<i>- / 0.790</i>	<i>- / 0.938</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 26.875</i>	
Installation													
<i>Modification Item 1 of 1:</i> CB010 - DoD Advanced Automation System (DAAS)	- / 47.119	- / 1.125	- / 1.535	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 49.779	
<i>Subtotal: Installation</i>	<i>- / 47.119</i>	<i>- / 1.125</i>	<i>- / 1.535</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 49.779</i>	
Total													
Total Cost (Procurement + Support + Installation)	120.803	3.491	4.118	-	-	-	-	-	-	-	-	128.412	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 1 / CB010 - DoD Advanced Automation System (DAAS)

Modification Item 1 of 1: CB010 - DoD Advanced Automation System (DAAS)

Manufacturer Information							
Manufacturer Name: Raytheon				Manufacturer Location: Marlborough, MA			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2016	Mar 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	40 / 47.119	2 / 0.595	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	42 / 47.714
FY 2015	- / -	- / 0.530	1 / 0.985	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.515
FY 2016	- / -	- / -	- / 0.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.550
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	40 / 47.119	2 / 1.125	1 / 1.535	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	43 / 49.779

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	40	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43
Out	40	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	43

Method of Implementation (Organic): Training Equipment - Not Installed **Installation Quantity:** 3

Footnotes:
 (1) DAAS - AP costs for Installation occur 1 year prior to actual install and show as quantity zero. In FY16, procurements are FACSFAC DAAS units which cover 3-4 times more airspace and are larger and costlier than FY15 procurements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 1 / CB010 - DoD Advanced Automation System (DAAS)

⁽²⁾ ECP costs are based on site unique software configurations.

⁽³⁾ Due to the procurement of the FACSFAC DAAS units in FY16, Production Engineering support costs increase as FAA certification costs are included in the price.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 2 / CB-030 Digital Airport Surveillance Radar (DASR)				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	150.940	2.030	2.125	-	-	-	-	-	-	-	-	155.095
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	150.940	2.030	2.125	-	-	-	-	-	-	-	-	155.095
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	150.940	2.030	2.125	-	-	-	-	-	-	-	-	155.095
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The DASR was developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The DASR is being installed in Navy ATC facilities to replace aging, obsolete approach control radars and comply with joint DoD/FAA modernization program agreements.

Inventory objective is 29 DASR. 29 procurements and 26 installations funded are through FY2016. Installation of the remaining 3 DASRs was funded and completed by the Federal Aviation Administration. Funding for DASR Engineering Change Proposals for FY2017 and beyond has been realigned to Ashore ATC Equipment (BLI 2820).

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2840 / National Air Space System					Modification Number / Title: 2 / CB-030 Digital Airport Surveillance Radar (DASR)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB-030 Digital Airport Surveillance Radar (DASR)													
B Kits													
Recurring													
1.1.1) End Item - NonOrganic ⁽⁴⁾	29 / 93.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 93.806	
<i>Subtotal: Recurring</i>	- / 93.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 93.806	
<i>Subtotal: CB-030 Digital Airport Surveillance Radar (DASR)</i>	29 / 93.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 93.806	
<i>Subtotal: Procurement, All Modification Items</i>	- / 93.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 93.806	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / 3.305	- / 0.025	- / 0.015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.345	
2.2) Production Engineering	- / 14.067	- / 0.405	- / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.622	
<i>Subtotal: Support</i>	- / 17.372	- / 0.430	- / 0.165	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.967	
Installation													
<i>Modification Item 1 of 1:</i> CB-030 Digital Airport Surveillance Radar (DASR)	- / 39.762	- / 1.600	- / 1.960	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.322	
<i>Subtotal: Installation</i>	- / 39.762	- / 1.600	- / 1.960	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 43.322	
Total													
Total Cost (Procurement + Support + Installation)	150.940	2.030	2.125	-	-	-	-	-	-	-	-	155.095	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 2 / CB-030 Digital Airport Surveillance Radar (DASR)

Modification Item 1 of 1: CB-030 Digital Airport Surveillance Radar (DASR)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	22 / 39.762	2 / 1.600	2 / 1.960	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	26 / 43.322
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	22 / 39.762	2 / 1.600	2 / 1.960	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 43.322

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	22	-	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26
Out	22	-	-	1	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26	

Footnotes:

(4) Quantity of procurements and quantity of installs do not match because three radar installations were funded and completed by the Federal Aviation Administration.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 3 / CB040 Tower Automation System (TAS)				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	56.107	3.742	1.700	-	-	-	-	-	-	-	-	61.549
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	56.107	3.742	1.700	-	-	-	-	-	-	-	-	61.549
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	56.107	3.742	1.700	-	-	-	-	-	-	-	-	61.549
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The TAS was developed as part of a joint DoD/Federal Aviation Administration (FAA) program to modernize and standardize Air Traffic Control (ATC) equipment in the National Airspace System. The TAS is being installed in Navy ATC facilities to replace aging, obsolete equipment and comply with joint DoD/FAA modernization program agreements.

Inventory objective is 57 TAS. All procurements and installations are funded through FY2016. Funding for TAS Engineering Change Proposals for FY2017 and beyond has been realigned to Ashore ATC Equipment (BLI 2820).

This effort includes Engineering Change Proposal (ECP) efforts directly related to the TAS Tech Refresh efforts detailed in cost element CB070 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications alert indicator. The nature of that consolidation creates an interdependency with CB070; which addresses severe obsolescence issues that render the current workstation configuration unsupported. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System						Modification Number / Title: 3 / CB040 Tower Automation System (TAS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB040 Tower Automation System (TAS)													
B Kits													
Recurring													
1.1.1) End Item - NonOrganic ⁽⁵⁾	55 / 15.645	2 / 0.550	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 16.195	
1.1.2) ECP/OCIR - Organic	- / 2.596	- / 1.500	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.896	
<i>Subtotal: Recurring</i>	- / 18.241	- / 2.050	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.091	
<i>Subtotal: CB040 Tower Automation System (TAS)</i>	55 / 18.241	2 / 2.050	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 21.091	
<i>Subtotal: Procurement, All Modification Items</i>	- / 18.241	- / 2.050	- / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.091	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / 2.593	- / 0.135	- / 0.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.778	
2.2) Production Engineering	- / 24.809	- / 0.291	- / 0.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 25.350	
<i>Subtotal: Support</i>	- / 27.402	- / 0.426	- / 0.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 28.128	
Installation													
<i>Modification Item 1 of 1:</i> CB040 Tower Automation System (TAS)	- / 10.464	- / 1.266	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.330	
<i>Subtotal: Installation</i>	- / 10.464	- / 1.266	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.330	
Total													
Total Cost (Procurement + Support + Installation)	56.107	3.742	1.700	-	-	-	-	-	-	-	-	61.549	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 3 / CB040 Tower Automation System (TAS)

Modification Item 1 of 1: CB040 Tower Automation System (TAS)

Manufacturer Information

Manufacturer Name: Pen-Tech	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015						
Delivery Dates	Jan 2016						

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	52 / 10.464	3 / 0.866	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	55 / 11.330
FY 2015	- / -	- / 0.400	2 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.000
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	52 / 10.464	3 / 1.266	2 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 12.330

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	52	-	2	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57
Out	52	-	-	2	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57

Footnotes:
⁽⁵⁾ TAS - AP costs for Installation occur 1 year prior to actual install and show as quantity zero.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 4 / CB050 STARS TECH Refresh Upgrade				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1.997	10.806	8.399	-	-	-	-	-	-	-	-	21.202
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1.997	10.806	8.399	-	-	-	-	-	-	-	-	21.202
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1.997	10.806	8.399	-	-	-	-	-	-	-	-	21.202
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Standard Terminal Automation Replacement System (STARS) is a joint (DoD) and Department of Transportation Federal Aviation Administration (FAA) program to modernize terminal air traffic control automation systems. The STARS contract was awarded by the FAA on September 16, 1996, and ends September 30, 2012. The FAA anticipates the award of a contract for system maintenance, system technical refresh, and system enhancements through FY2017. The FAA began the Next Generation Air Transportation System initiative in FY2008. A major component of this capability is Automatic Dependent Surveillance Broadcast, which will provide aircraft position information in place of ground-based radar. The DoD version of STARS DoD Advanced Automation System (DAAS) must be upgraded to meet this requirement.

Inventory objective is 48 STARS Tech Refresh Upgrades. 13 procurements and 9 installations are funded through FY2016. Funding for remaining 35 procurements and 39 installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System						Modification Number / Title: 4 / CB050 STARS TECH Refresh Upgrade			
Models of Systems Affected: NAS				Modification Type: AIT				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: CB050 STARS TECH Refresh Upgrade</i>													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽⁶⁾	2 / 1.926	7 / 9.136	4 / 5.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 16.356	
<i>Subtotal: Recurring</i>	- / 1.926	- / 9.136	- / 5.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.356	
<i>Subtotal: CB050 STARS TECH Refresh Upgrade</i>	2 / 1.926	7 / 9.136	4 / 5.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 16.356	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.926	- / 9.136	- / 5.294	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 16.356	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / 0.020	- / 0.100	- / 0.160	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.280	
3.2) Production Engineering	- / 0.051	- / 0.850	- / 0.425	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.326	
<i>Subtotal: Support</i>	- / 0.071	- / 0.950	- / 0.585	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.606	
Installation													
<i>Modification Item 1 of 1: CB050 STARS TECH Refresh Upgrade</i>	- / 0.000	- / 0.720	- / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.240	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.720	- / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.240	
Total													
Total Cost (Procurement + Support + Installation)	1.997	10.806	8.399	-	-	-	-	-	-	-	-	21.202	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 4 / CB050 STARS TECH Refresh Upgrade

Modification Item 1 of 1: CB050 STARS TECH Refresh Upgrade

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2016	Mar 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	2 / 0.720	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 0.720
FY 2015	- / -	- / -	7 / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.520
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 0.720	7 / 2.520	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 3.240

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	2	-	-	-	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Out	-	-	-	2	-	-	-	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	

Footnotes:

⁽⁶⁾ (1) Support cost fluctuations are due to the tailored to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements. (2) Installation costs fluctuate based on location of installation and the tailoring of systems to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 5 / CB060 DASR Tech Refresh Upgrade
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.628	1.163	1.186	-	-	-	-	-	-	-	-	2.977
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.628	1.163	1.186	-	-	-	-	-	-	-	-	2.977
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.628	1.163	1.186	-	-	-	-	-	-	-	-	2.977
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Federal Aviation Administration (FAA) Digital Airport Surveillance Radar (DASR) Technology Refresh is an ongoing program to address obsolescence and maintenance issues and is being accomplished in sequential 5-year segments. The Segment 1 program replaces and upgrades obsolete Commercial Off-The-Shelf hardware and software to ensure the continued reliable and cost effective operation of the radar system through its designated lifecycle. Segment 1 is well defined and provides increased functionality by replacing existing Signal Data Processors (SDPs) with an Advanced Signal Data Processor. The major objectives of Segment 1 are: 1) Install replacement kits for the SDP and eliminate the Low Overhead Array Processors, 2) Use scalable hardware and software architecture to permit easy future growth with minimal cost and effort, and 3) Address system In-Service Decision open action items. Segment 2 is being defined by the FAA to identify parts obsolescence, operational performance deficiencies, or other areas requiring technology refresh including upgrades to mitigate wind turbine interference.

Inventory objective was 29, but is now only 2. FAA DASR technical refreshment has not progressed as planned and has been reorganized into multiple Engineering Change Proposals (ECPs) to mitigate obsolescence effective FY2017. Two procurements and installations are planned through FY2016. An ECP line has been added to CB030 starting in FY2017 in Ashore ATC Equipment (BLI 2820).

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System						Modification Number / Title: 5 / CB060 DASR Tech Refresh Upgrade			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB060 DASR Tech Refresh Upgrade													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic ⁽⁷⁾	- / -	1 / 0.576	1 / 0.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.156	
2.1.2) ECP - Organic	- / 0.598	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.598	
<i>Subtotal: Recurring</i>	- / 0.598	- / 0.576	- / 0.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.754	
<i>Subtotal: CB060 DASR Tech Refresh Upgrade</i>	- / 0.598	1 / 0.576	1 / 0.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.754	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.598	- / 0.576	- / 0.580	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.754	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / 0.020	- / 0.100	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.220	
3.2) Production Engineering	- / 0.010	- / 0.342	- / 0.342	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.694	
<i>Subtotal: Support</i>	- / 0.030	- / 0.442	- / 0.442	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.914	
Installation													
<i>Modification Item 1 of 1:</i> CB060 DASR Tech Refresh Upgrade	- / 0.000	- / 0.145	- / 0.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.309	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.145	- / 0.164	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.309	
Total													
Total Cost (Procurement + Support + Installation)	0.628	1.163	1.186	-	-	-	-	-	-	-	-	2.977	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 6 / CB070 TAS Tech Refresh				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.050	1.649	4.200	-	-	-	-	-	-	-	-	5.899
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.050	1.649	4.200	-	-	-	-	-	-	-	-	5.899
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.050	1.649	4.200	-	-	-	-	-	-	-	-	5.899
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Tower Automation Systems (TAS) have been fielded since 2001 and are experiencing obsolescence and Information Assurance (IA) issues. These upgrades will address these obsolescence and IA issues as well as maintain compatibility with the FAA's Next Generation (NextGen) Air Transportation System initiatives. Additionally, these upgrades will enhance system performance to provide Common Access Card utilization, multi-source weather reporting and Tactical Air Control Navigation control. In order to achieve the modernization of the National Air Space (NAS) envisioned by NextGen, the FAA is developing a Terminal Flight Data Management (TFDM) platform that integrates flight data systems and decision support tools. The TFDM program is an integrated approach to maximize the efficient collection, distribution, and update of data and improve access to information necessary for the safe and efficient control of air traffic. The TAS will be upgraded to be consistent with the FAA TFDM.

This effort includes TAS Tech Refresh efforts directly related to the Engineering Change Proposal (ECP) efforts detailed in cost element CB040 of this budget. The ECP introduces new capability into a common workstation that eliminates a separate visual communications (VISCOM) alert indicator. The nature of that consolidation creates an interdependency with CB040; which addresses severe obsolescence issues that render the current workstation configuration unsupported. Both software and hardware for these two cost elements overlap and require concurrent efforts. Delay or interruption to either CB040 and/or CB070 causes a break in fleet capability and negatively impacts both flight safety and operator workload.

Inventory objective is 57. 23 procurements and 7 installations are funded through FY2016. Funding for remaining 34 procurements and 50 installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System						Modification Number / Title: 6 / CB070 TAS Tech Refresh			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: CB070 TAS Tech Refresh</i>													
B Kits													
Recurring													
2.1.1) End Item - NonOrganic	- / -	7 / 1.029	16 / 2.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 3.429	
<i>Subtotal: Recurring</i>	- / 0.000	- / 1.029	- / 2.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.429	
<i>Subtotal: CB070 TAS Tech Refresh</i>	- / -	7 / 1.029	16 / 2.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 3.429	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 1.029	- / 2.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.429	
Support (All Modification Items)													
3.1) Integrated Logistics Support ⁽⁸⁾	- / -	- / 0.125	- / 0.235	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.360	
3.2) Production Engineering	- / 0.050	- / 0.495	- / 0.631	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.176	
<i>Subtotal: Support</i>	- / 0.050	- / 0.620	- / 0.866	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.536	
Installation													
<i>Modification Item 1 of 1: CB070 TAS Tech Refresh</i>	- / 0.000	- / -	- / 0.934	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.934	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.934	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.934	
Total													
Total Cost (Procurement + Support + Installation)	0.050	1.649	4.200	-	-	-	-	-	-	-	-	5.899	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 6 / CB070 TAS Tech Refresh

Modification Item 1 of 1: CB070 TAS Tech Refresh

Manufacturer Information

Manufacturer Name: Pen-Tech				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2016	Mar 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: End Item

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	7 / 0.934	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.934
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	7 / 0.934	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.934

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Out	-	-	-	-	-	-	-	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Footnotes:
 (8) Support cost fluctuations are tailored to meet Naval Air Station / Fleet Area Control and Surveillance Facility requirements, and Marine Corps Air Station mission requirements.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System				Modification Number / Title: 7 / CB080 NAS Voice System (NVS)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	3.758	3.893	-	-	-	-	-	-	-	-	7.651
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	3.758	3.893	-	-	-	-	-	-	-	-	7.651
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	3.758	3.893	-	-	-	-	-	-	-	-	7.651

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Federal Aviation Administration (FAA) NAS Voice System (NVS) is a forward-looking program to replace National Airspace System (NAS) voice switches and radios with a new technology system capable of supporting future requirements for the Next Generation Air Transportation System (NextGen). Many of these switches are experiencing increasing obsolescence and failures and are in need of replacement. They are not capable of supporting flexible reallocation of access to communications resources, and lack security needed for a network-based communications infrastructure, which is a key concept in modernization of the NAS. The NVS program will provide a key transitional element in the air traffic control voice communications infrastructure as it moves toward realizing the FAAs NextGen vision and a more operationally efficient and economic NAS.

Radios: There are 75 sites which will receive a total of 4,498 radios. The sites to receive radios include Fleet Area Control Surveillance Facilities (FACSFACs) remote sites at Naval and Marine Corps Air Stations. The number of radios per site varies due to operational requirements and the number of aircraft serviced. 607 procurements and 273 installations are funded through FY2016. Funding for remaining 3,891 procurements and 4,225 installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

Voice Switches: There are two specific types of Voice Switches being procured: Operational Communication System (OCS) and Emergency Control System (ECS): 56 OCS Voice Switches, 42 ECS Voice Switches. Procurements, installations and associated support costs have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2840 / National Air Space System						Modification Number / Title: 7 / CB080 NAS Voice System (NVS)			
Models of Systems Affected: NAS				Modification Type: Added Capability				Related RDT&E PEs: 0604504N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> CB080 NAS Voice System (NVS)													
B Kits													
Recurring													
2.1.2) End Item: Radios - NonOrganic ⁽⁹⁾	- / -	273 / 2.940	334 / 2.805	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	607 / 5.745	
<i>Subtotal: Recurring</i>	- / 0.000	- / 2.940	- / 2.805	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.745	
<i>Subtotal: CB080 NAS Voice System (NVS)</i>	- / -	273 / 2.940	334 / 2.805	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	607 / 5.745	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 2.940	- / 2.805	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.745	
Support (All Modification Items)													
3.1) Integrated Logistics Support	- / -	- / 0.288	- / 0.160	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.448	
3.2) Production Engineering	- / -	- / 0.530	- / 0.302	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.832	
<i>Subtotal: Support</i>	- / 0.000	- / 0.818	- / 0.462	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.280	
Installation													
<i>Modification Item 1 of 1:</i> CB080 NAS Voice System (NVS)	- / 0.000	- / -	- / 0.626	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.626	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.626	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.626	
Total													
Total Cost (Procurement + Support + Installation)	0.000	3.758	3.893	-	-	-	-	-	-	-	-	7.651	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2840 / National Air Space System	Modification Number / Title: 7 / CB080 NAS Voice System (NVS)

Modification Item 1 of 1: CB080 NAS Voice System (NVS)

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2016	Mar 2017					

Installation Information

Method of Implementation: AIT: Installation Name: End Item:: Installation Name: End Item: Radios

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	273 / 0.626	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	273 / 0.626
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	273 / 0.626	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	273 / 0.626

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	90	90	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273
Out	-	-	-	-	-	-	90	90	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	273

Footnotes:
⁽⁹⁾ End Item costs are based on current FAA contract pricing.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2845 / Fleet Air Traffic Control Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	193.758	9.672	8.249	-	-	-	-	-	-	-	-	211.679
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	193.758	9.672	8.249	-	-	-	-	-	-	-	-	211.679
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	193.758	9.672	8.249	-	-	-	-	-	-	-	-	211.679

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.204	0.724	-	-	-	-	-	-	-	-	0.928
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

NAVAIR provides shore based Air Traffic Control (ATC) terminal facilities and equipment that are required in joint efforts to efficiently and safely monitor and direct military and commercial air traffic in national and international air space. Many of these systems are required to interface through automated means with the Federal Aviation Administration (FAA). Additionally, NAVAIR has material support responsibility for Air Navigation Aid Systems, Mobile ATC Equipment, Special Instrumentation Systems, and Ancillary Equipment used at Navy and Marine Corps Aviation Shore activities in the continental United States and overseas.

Engineering Change Proposal (ECP)/Operational Capability Improvement Request (OCIR) modernization (MR069) - The ECP/OCIR program provides for the procurement and/or modification of critically needed communications, radar, displays, data processors, and other electronic systems/equipment at Navy/Marine Corps ATC facilities worldwide. ECP/OCIR procurements replace and modernize costly-to-maintain systems and equipment in order to increase ATC efficiency and safety, and reduce total ownership costs.

Communications Systems Upgrade Program (MR408) - This program procures and installs advanced commercial state-of-the-art ATC voice switching and recording/reproduction equipment.

Fiber Optic Intersite System (FOIS) Upgrade Program (MR430) - FOIS is required for Precision Approach Radar (PAR) operations and the AN/FAC-6(V)4 FOIS is required for ATC voice communications at Naval and Marine Corps ATC facilities. This program ensures continued capability of these critical ATC systems.

UHF/VHF Transceiver Replacement Program (MR440) - This program modernizes aging Navy and Marine Corps UHF/VHF Transceivers that are the central core of all ATC emergency communications.

Emergency Communication System (ECS) Upgrade Program (MR445) - This program modernizes obsolete and unsupported ECS equipment. Voice Switches, Recorders, Reproducers, Uninterruptable Power Supplies, and Built-In Test Equipment will be replaced with modern, supportable components.

Recorder Upgrade Program (MR455) - This program procures and installs state-of-the-art ATC recording/reproducing equipment which will be used to replace aging ATC recorder systems through participation in the FAA's Next Generation Recorder Program.

Air Field Lighting Control System (AFLCS) (MR510) - This program modernizes obsolete and unsupported AFLCS equipment which will be replaced with modern, supportable components.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment		P-1 Line Item Number / Title: 2845 / Fleet Air Traffic Control Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Fleet Area Control and Surveillance Facilities (FACSFAC) Tech Refresh (MR515) - This program modernizes obsolete and unsupported Commercial Off The Shelf (COTS) equipment in the AN/FYK-39 FACSFAC Air Control and Tracking System (FACTS). As directed by OPNAV Ser N98/13U160282, FACSFAC Tech Refresh will be funded under the NASMOD STARS program. Funding for this effort has been removed from the Fleet ATC budget (2845) effective FY2016.</p> <p>Operational Communication System (OCS)/Emergency Communication System (ECS) Air Traffic Control (ATC) Recorder replacement program (MR520), through participation in the Federal Aviation Administration's (FAA) ATC recorder replacement program will replace aging and obsolete ATC OCS and ECS ATC recorders with state of the art ATC recording/reproducing technology.</p> <p>* Prior year total amount accounts for items funded in the current FYDP.</p> <p>Funding for procurements, support costs and associated installs for FY17 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).</p>		

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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 02: Communications & Electronics Equip /
 BSA 9: Aviation Electronic Equipment **P-1 Line Item Number / Title:**
 2845 / Fleet Air Traffic Control Systems

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

Line Item MDAP/MAIS Code: N/A **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Fleet Air Traffic Control Systems			- / 193.758	- / 9.672	- / 8.249	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 193.758	- / 9.672	- / 8.249	- / -	- / -	- / -

*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 basis for the budget request is to continue modernizing aging Navy and Marine Corps ATC facilities and equipment in order to safely monitor and direct military and commercial air traffic in national and international air space. This equipment must continue to interface through automated means with the Federal Aviation Administration.

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Exhibit P-5, Cost Analysis: PB 2017 Navy					Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9			P-1 Line Item Number / Title: 2845 / Fleet Air Traffic Control Systems			Item Number / Title [DODIC]: 1 / Fleet Air Traffic Control Systems			
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)				193.758	9.672	8.249	-	-	-
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)				193.758	9.672	8.249	-	-	-
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)				193.758	9.672	8.249	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	0.204	0.724	-	-	-
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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Fleet ATC - Hardware Cost																		
Recurring Cost																		
1.1.1) MR069 ECP/OCIR ⁽¹⁾	54,920.00	200	10.984	91,000.00	14	1.274	88,142.86	7	0.617	-	-	-	-	-	-	-	-	-
1.1.2) MR408 COMM System Upgrade ⁽²⁾	336,454.55	55	18.505	670,000.00	1	0.670	950,000.00	1	0.950	-	-	-	-	-	-	-	-	-
1.1.3) MR430 Fiber Optic Intersite Upgrade ⁽³⁾	150,083.33	36	5.403	204,000.00	6	1.224	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) MR440 UHF/VHF Transceiver Replacement ⁽⁴⁾	30,045.71	175	5.258	33,000.00	44	1.452	33,000.00	30	0.990	-	-	-	-	-	-	-	-	-
1.1.5) MR445 Emergency Communication System (ECS) Upgrade ⁽⁵⁾	408,142.86	21	8.571	420,000.00	3	1.260	421,000.00	3	1.263	-	-	-	-	-	-	-	-	-
1.1.6) MR455 ATC Recorder Upgrade Program ⁽⁶⁾	66,946.43	56	3.749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.7) MR510 Air Field Lighting Control System ⁽⁷⁾	-	-	-	300,000.00	1	0.300	306,000.00	2	0.612	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	52.470	-	-	6.180	-	-	4.432	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9						P-1 Line Item Number / Title: 2845 / Fleet Air Traffic Control Systems						Item Number / Title [DODIC]: 1 / Fleet Air Traffic Control Systems					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware - Fleet ATC - Hardware Cost</i>	-	-	52.470	-	-	6.180	-	-	4.432	-	-	-	-	-	-	-	-	-
Support - Other Cost																		
2.1) Other Costs	-	-	135.777	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.2) Fleet ATC Integrated Logistics Support (MR800)	-	-	0.442	-	-	0.175	-	-	0.315	-	-	-	-	-	-	-	-	-
2.3) Fleet ATC Production Engineering (MR830)	-	-	1.065	-	-	0.423	-	-	0.543	-	-	-	-	-	-	-	-	-
2.4) Fleet ATC Installs	-	-	4.004	-	-	2.894	-	-	2.959	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Other Cost</i>	-	-	141.288	-	-	3.492	-	-	3.817	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	193.758	-	-	9.672	-	-	8.249	-	-	-	-	-	-	-	-	-

Footnotes:

- (1) MR069: Number and unit costs of Operational Capability Improvement Requests (OCIR) costs can vary significantly between fiscal years. The unit cost for an individual OCIR can range in price from 1,500.00 to 175,000.00 so the unit cost is an average of all the OCIRS and therefore appears to fluctuate from year to year.
- (2) MR408: Total end item quantity: 59. 57 procurements and 56 installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820). Site specific configuration drives cost which is why the unit cost does not remain constant from FY15 to FY16. Quantity of FY2014 procurements and quantity of FY2015 installs do not match because the FY14 procurement was funded by Air Force Central Command (AFCENT) while the install will be funded by DON in FY2015.
- (3) MR430: Inventory objective is 42 FOIS Upgrades. 42 procurements and installations are funded through FY2016.
- (4) MR440: Inventory objective is 330 UHF/VHF Transceiver Replacements. 249 procurements and installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).
- (5) MR445: Inventory objective is 45 ECS Upgrades. 27 procurements and 24 installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).
- (6) MR455: Inventory objective is 56 ATC Recorder Upgrades. 56 procurements and installations are funded through FY2016.
- (7) MR510: Inventory objective is 45 Airfield Lighting Control Systems. 3 procurements and 1 installation are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2846 / Landing Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	85.339	9.602	14.715	-	-	-	-	-	-	-	-	109.656
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	85.339	9.602	14.715	-	-	-	-	-	-	-	-	109.656
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	85.339	9.602	14.715	-	-	-	-	-	-	-	-	109.656

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Chief of Naval Operations (CNO) tasked Naval Air Systems Command (NAVAIR) with the requirement to provide shore based Air Traffic Control (ATC) terminal facilities and equipment that are required to efficiently and safely monitor and direct military and commercial air traffic in national and international air space. Many of these systems are required to interface through automated means with the Federal Aviation Administration (FAA). Additionally, NAVAIR has material support responsibility for Air Navigation Aid Systems, Mobile ATC Equipment, Special Instrumentation Systems, and Ancillary Equipment used for ATC and Landing Systems (LS) by the Navy and Marine Corps. This Landing Systems program, in conjunction with the Fleet ATC Systems and the National Airspace System Modernization program provide the three pillars by which the Navy supports and meets established requirements to modernize and ensure reliable, safe and effective operations of ATC & LS used at the Navy and Marine Corps air stations worldwide.

This Landing Systems budget provides funding to modernize and ensure the reliability of Precision Approach Radars (PAR), Tactical Air Navigation (TACAN) systems, and other air navigation aids used by the Navy and Marine Corps.

PAR Commercial-off-the-shelf (COTS) Upgrade Engineering Change Proposals (ECPs) update old technology and extend the service life of the PAR. The PAR Upgrade ECPs consist of the Modulator Board Upgrade ECP, the Antenna Upgrade ECP, the Configuration Upgrade ECP, the Turntable Upgrade ECP, the Fiber Optic Intersite System (FOIS) ECP, the Angle Voltage Generator (AVG) Upgrade ECP, and the Technology Refresh Upgrade ECP.

TACAN Upgrade ECPs update old technology and extend the service life of the TACAN. The TACAN sustainment consists of the Antenna Upgrade ECP, the Shelter Upgrade ECP and the Beacon Upgrade ECP.

Funding for Procurements, support cost and associated installs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2846 / Landing Systems

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

Line Item MDAP/MAIS Code: N/A **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Landing Systems			- / 74.749	- / 3.215	- / 2.984	- / -	- / -	- / -
P-3a	1 / AN/FPN-63 PAR TECH REFRESH COTs (X1036) (Reliability)			- / 10.590	- / 4.585	- / 5.455	- / -	- / -	- / -
P-3a	2 / PAR ILS Upgrade (X1037) (TBD)			- / 0.000	- / 1.802	- / 3.311	- / -	- / -	- / -
P-3a	3 / TACAN Antenna Upgrade (X1043) (Modernization)			- / 0.000	- / -	- / 2.965	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 85.339	- / 9.602	- / 14.715	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Landing Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / AN/FPN-63 PAR TECH REFRESH COTs (X1036) (Reliability)			- / -	- / -	- / -	- / -	- / -	- / 20.630
P-3a	2 / PAR ILS Upgrade (X1037) (TBD)			- / -	- / -	- / -	- / -	- / -	- / 5.113
P-3a	3 / TACAN Antenna Upgrade (X1043) (Modernization)			- / -	- / -	- / -	- / -	- / -	- / 2.965
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 109.656

*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:
Prior years total amount only accounts for items funded in the current FYDP. Funding for Procurements, support cost and associated installs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9		P-1 Line Item Number / Title: 2846 / Landing Systems
		Item Number / Title [DODIC]: 1 / Landing Systems

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	74.749	3.215	2.984	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	74.749	3.215	2.984	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	74.749	3.215	2.984	-	-	-

(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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - Landing Systems Cost																		
Recurring Cost																		
1.1.1) X1030 PAR AVG Upgrade ⁽¹⁾	93,485.71	35	3.272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.2) X1031 PAR FOIS ⁽²⁾	75,285.71	14	1.054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) X1032 PAR TURNTABLE UPGRADE ⁽³⁾	185,300.00	30	5.559	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.4) X1033 - PAR CONFIGURATION UPGRADE ⁽⁴⁾	55,025.97	77	4.237	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.5) X1040 - TACAN SHELTER UPGRADE ⁽⁵⁾	296,500.00	16	4.744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.6) X1041 - TACAN ANTENNA UPGRADE ⁽⁶⁾	34,402.30	87	2.993	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.7) X1042 - TACAN BEACON UPGRADE ⁽⁷⁾	210,735.85	53	11.169	224,250.00	8	1.794	217,750.00	8	1.742	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	33.028	-	-	1.794	-	-	1.742	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Landing Systems Cost</i>	-	-	33.028	-	-	1.794	-	-	1.742	-	-	-	-	-	-	-	-	-
Support - Other Cost																		

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9						P-1 Line Item Number / Title: 2846 / Landing Systems						Item Number / Title [DODIC]: 1 / Landing Systems					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
2.1) X1800 - Landing Systems Integrated Logistics Support	-	-	1.871	-	-	0.008	-	-	0.327	-	-	-	-	-	-	-	-	-
2.2) X1830 - Landing Systems Production Engineering	-	-	5.067	-	-	0.821	-	-	0.692	-	-	-	-	-	-	-	-	-
2.3) X1840 - Landing Systems Quality Assurance	-	-	0.172	-	-	0.010	-	-	0.026	-	-	-	-	-	-	-	-	-
2.4) X1900 - Landing System Installs	-	-	1.698	-	-	0.582	-	-	0.197	-	-	-	-	-	-	-	-	-
2.5) Other Support ⁽⁶⁾	-	-	32.913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Other Cost</i>	-	-	41.721	-	-	1.421	-	-	1.242	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	74.749	-	-	3.215	-	-	2.984	-	-	-	-	-	-	-	-	-

Remarks:
Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

- Footnotes:**
- (1) Inventory objective is 35 PAR AVG Upgrades. 35 procurements and installations are funded through FY2016.
 - (2) Inventory objective is 14 PAR FOIS. 14 procurements and installations are funded through FY2016.
 - (3) Inventory objective is 30 PAR Turntable Upgrades. 30 procurements and installations are funded through FY2016.
 - (4) Inventory objective is 77 PAR Configuration Upgrades. 77 procurements and installations are funded through FY2016.
 - (5) Inventory objective is 16 TACAN Shelter Upgrades. 16 procurements and installations are funded through FY2016.
 - (6) Inventory objective is 87 TACAN Antenna Upgrades. 87 procurements and installations are funded through FY2016.
 - (7) Inventory objective is 85. 69 procurements and 65 installs are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment BLI 2820.
 - (8) Other Support includes Production Engineering, Integrated Logistics Support, Quality Assurance, and Install costs prior to FY2013.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2846 / Landing Systems				Modification Number / Title: 1 / AN/FPN-63 PAR TECH REFRESH COTs (X1036)				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	10.590	4.585	5.455	-	-	-	-	-	-	-	-	20.630
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	10.590	4.585	5.455	-	-	-	-	-	-	-	-	20.630
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	10.590	4.585	5.455	-	-	-	-	-	-	-	-	20.630
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This Engineering Change Proposal (ECP) constitutes Block 2 and 3 of the Service Life Extension Program for the AN/FPN-63. It will extend the service life to at least 2025 by replacing obsolete receiver/transmitter assemblies, radar video processors, and controller displays with state-of-the-art assemblies/displays. This upgrade will also correct numerous human factors issues. This ECP will be accomplished on 36 deployed AN/FPN-63 Precision Approach Radar (PAR) Systems.

Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2846 / Landing Systems					Modification Number / Title: 1 / AN/FPN-63 PAR TECH REFRESH COTs (X1036)			
Models of Systems Affected: Shore Sites				Modification Type: Reliability				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: AN/FPN-63 PAR TECH REFRESH COTs (X1036)</i>													
B Kits													
Recurring													
1.1.1) X1036 - PAR Tech Refresh - Organic ⁽⁹⁾	1 / 7.564	1 / 2.996	1 / 3.916	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 14.476	
<i>Subtotal: Recurring</i>	- / 7.564	- / 2.996	- / 3.916	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.476	
<i>Subtotal: AN/FPN-63 PAR TECH REFRESH COTs (X1036)</i>	1 / 7.564	1 / 2.996	1 / 3.916	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 14.476	
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.564	- / 2.996	- / 3.916	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.476	
Support (All Modification Items)													
2.1) Integrated Logistics Support	- / 1.393	- / 0.120	- / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.633	
2.2) Production Engineering	- / 1.523	- / 1.439	- / 1.389	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.351	
2.3) Quality Assurance	- / 0.110	- / 0.030	- / 0.030	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.170	
<i>Subtotal: Support</i>	- / 3.026	- / 1.589	- / 1.539	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.154	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	10.590	4.585	5.455	-	-	-	-	-	-	-	-	20.630	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2846 / Landing Systems	Modification Number / Title: 1 / AN/FPN-63 PAR TECH REFRESH COTs (X1036)

Modification Item 1 of 1: AN/FPN-63 PAR TECH REFRESH COTs (X1036)

Manufacturer Information

Manufacturer Name: MOOG	Manufacturer Location: Salt Lake City, Utah
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015					
Delivery Dates	Jan 2016	Jan 2017					

Installation Information

Method of Implementation (Organic): X1036 - PAR Tech Refresh - Not Installed	Installation Quantity: 3
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Footnotes:
⁽⁹⁾ Installation of FY2014-16 procurements will occur in FY2017 with funding on BLI 2820. FY14-16 procurements will occur in 2QFY16 when the basic contract is awarded. Funding in these three years has been decreased to account for this contract delay.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2846 / Landing Systems	Modification Number / Title: 2 / PAR ILS Upgrade (X1037)
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	1.802	3.311	-	-	-	-	-	-	-	-	5.113
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	1.802	3.311	-	-	-	-	-	-	-	-	5.113
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	1.802	3.311	-	-	-	-	-	-	-	-	5.113
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The precision Approach Radar (PAR) is an aging system with multiple obsolete parts, and requires updating to ensure the system stays relevant through the year 2030 to bridge the gap in converting Naval aircraft to be Instrument Landing System (ILS) capable, a change precipitated by schedule changes to the Joint Precision Approach and Landing Systems (JPALS) program. Due to obsolescence, the AN/FPN-63 needs additional spare parts to meet the needs of the Navy. Currently, parts can only be obtained through cannabilization, and updated PARs are required to meet the needs of Naval Aviation until the ILS conversion is complete. ILS will provide an unmanned Precision Approach capability which will greatly reduce associated manpower cost currently required.

Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2846 / Landing Systems					Modification Number / Title: 2 / PAR ILS Upgrade (X1037)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> PAR ILS Upgrade (X1037)													
B Kits													
Recurring													
1.1.1) X1037 - PAR ILS - Organic ⁽¹⁰⁾	- / -	- / -	2 / 1.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.360	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 1.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.360	
<i>Subtotal: PAR ILS Upgrade (X1037)</i>	- / -	- / -	2 / 1.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.360	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 1.360	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.360	
Support (All Modification Items)													
2.1) Logistics	- / -	- / -	- / 0.576	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.576	
2.2) Production Engineering	- / -	- / 1.802	- / 1.340	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.142	
2.4) Quality Assurance	- / -	- / -	- / 0.035	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.035	
<i>Subtotal: Support</i>	- / 0.000	- / 1.802	- / 1.951	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.753	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	1.802	3.311	-	-	-	-	-	-	-	-	5.113	

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2846 / Landing Systems	Modification Number / Title: 2 / PAR ILS Upgrade (X1037)
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Modification Item 1 of 1: PAR ILS Upgrade (X1037)

Manufacturer Information

Manufacturer Name: MOOG	Manufacturer Location: Salt Lake City, UT
Administrative Leadtime (<i>in Months</i>): 3	Production Leadtime (<i>in Months</i>): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Dec 2015					
Delivery Dates		Dec 2016					

Installation Information

Method of Implementation (Organic): X1037 - PAR ILS - Not Installed	Installation Quantity: 2
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Footnotes:

⁽¹⁰⁾ Inventory objective is 31. 2 procurements and 0 installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment BLI 2820.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2846 / Landing Systems	Modification Number / Title: 3 / TACAN Antenna Upgrade (X1043)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	2.965	-	-	-	-	-	-	-	-	2.965
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	2.965	-	-	-	-	-	-	-	-	2.965
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	2.965	-	-	-	-	-	-	-	-	2.965
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Tactical Air Navigation (TACAN) Antenna Upgrade program is a New Start for FY2016 and will provide shore installations with a new antenna for TACAN systems. Justification: TACAN is a dated systems with multiple obsolete parts. Modernization of the TACAN antenna is required to reduce maintenance and improve life span in order to meet needs of the Fleet, and provide a stand-alone recovery system in the wake of the Joint Precision Approach and Landing System (JPALS) program restructure.

Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment (BLI 2820).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2846 / Landing Systems						Modification Number / Title: 3 / TACAN Antenna Upgrade (X1043)			
Models of Systems Affected: Shore Sites			Modification Type: Modernization					Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: TACAN Antenna Upgrade (X1043)</i>													
B Kits													
Recurring													
1.1.1) TACAN Antenna Upgrade - Organic ⁽¹¹⁾	- / -	- / -	9 / 2.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.045	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 2.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.045	
<i>Subtotal: TACAN Antenna Upgrade (X1043)</i>	- / -	- / -	9 / 2.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.045	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 2.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.045	
Support (All Modification Items)													
2.1) Logistics	- / -	- / -	- / 0.556	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.556	
2.2) Production Engineering	- / -	- / -	- / 0.364	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.364	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 0.920	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.920	
Installation													
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	2.965	-	-	-	-	-	-	-	-	2.965	

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2846 / Landing Systems	Modification Number / Title: 3 / TACAN Antenna Upgrade (X1043)
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Modification Item 1 of 1: TACAN Antenna Upgrade (X1043)

Manufacturer Information

Manufacturer Name: TBD	Manufacturer Location: TBD
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Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12
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Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Dec 2015					
Delivery Dates		Dec 2016					

Installation Information

Method of Implementation (Organic): TACAN Antenna Upgrade	Installation Quantity: 9
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Footnotes:

⁽¹¹⁾ Inventory objective Qty increase from 25 to 265 based on fleet requirements. 9 procurements and 0 installations are funded through FY2016. Funding for remaining procurements and installations and associated support costs for FY2017 and beyond have been realigned to Ashore ATC Equipment BLI 2820.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2851 / ID Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604777N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	239.699	28.085	29.676	22.177	-	22.177	26.711	28.650	29.272	29.888	326.715	760.873
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	239.699	28.085	29.676	22.177	-	22.177	26.711	28.650	29.272	29.888	326.715	760.873
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	239.699	28.085	29.676	22.177	-	22.177	26.711	28.650	29.272	29.888	326.715	760.873

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.050	0.067	0.076	-	0.076	0.079	0.086	0.087	0.088	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in ID Systems by \$0.92M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Identification Systems program funds procurements, installations, and certifications for the following systems: AN/UPX-37, AN/UPX-41, and AN/UPX-45 Digital Interrogators, AN/APX-118 and AN/APX-123 Common Digital Transponder, AN/UPX-29 Interrogator System (comprised of the Interrogator Set AN/UPX-24, OE-120()/UPX Antenna Group, and Mark XII or Mark XIIA equipment), Mark XIIA Mode 5, Identification Friend Foe (IFF) support equipment, AN/UPX-34A Radar Track Discriminator System, and AN/URN-25 Ship Tactical Air Navigation.

The Air Traffic Control Radio Beacon System, IFF, Mark XII/XIIA System AIMS is a DoD directed tri-service program designed to provide a universal air traffic control radar beacon system compatible with the National Airspace System Program. It provides a secure identification system for military use on all combatant ships, selected auxiliaries, patrol craft, and selected Coast Guard ships by allowing all friendly forces to identify each other and neutral forces. The Mark XII/XIIA system supports several missions such as anti-air warfare, aerial bombardment, and naval attack.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2851 / ID Systems

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604777N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) (Reliability)			- / 53.750	- / 3.044	- / 1.991	- / 1.398	- / -	- / 1.398
P-3a	3 / AN/UPX 24 (V) Mode S (MT035) (Capability Improvement)			- / 25.162	- / 4.611	- / 2.812	- / 3.372	- / -	- / 3.372
P-3a	4 / Mark XII Mode 5 (MT037) (Capability Improvement)			- / 121.070	- / 14.131	- / 19.348	- / 11.295	- / -	- / 11.295
P-3a	5 / TACAN System Upgrade (MT038) (Reliability)			- / 18.718	- / 2.531	- / 3.837	- / 3.744	- / -	- / 3.744
P-3a	6 / Mode S Digital Interrogator (MT040) (Capability Improvement)			- / 20.999	- / 3.768	- / 1.688	- / 2.368	- / -	- / 2.368
P-3a	7 / OE-120/UPX Antenna (MT041) (Reliability)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 239.699	- / 28.085	- / 29.676	- / 22.177	- / -	- / 22.177

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032) (Reliability)			- / 1.097	- / 0.940	- / 0.613	- / 0.461	- / 1.202	- / 64.496
P-3a	3 / AN/UPX 24 (V) Mode S (MT035) (Capability Improvement)			- / 4.815	- / 6.281	- / 6.344	- / 7.310	- / 32.422	- / 93.129
P-3a	4 / Mark XII Mode 5 (MT037) (Capability Improvement)			- / 12.131	- / 8.643	- / 3.308	- / 1.910	- / 4.849	- / 196.685
P-3a	5 / TACAN System Upgrade (MT038) (Reliability)			- / 4.021	- / 4.028	- / 4.122	- / 4.200	- / 31.349	- / 76.550
P-3a	6 / Mode S Digital Interrogator (MT040) (Capability Improvement)			- / 4.647	- / 5.497	- / 5.116	- / 5.969	- / 26.814	- / 76.866
P-3a	7 / OE-120/UPX Antenna (MT041) (Reliability)			- / -	- / 3.261	- / 9.769	- / 10.038	- / 230.079	- / 253.147
P-40	Total Gross/Weapon System Cost			- / 26.711	- / 28.650	- / 29.272	- / 29.888	- / 326.715	- / 760.873

*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 purpose of the AN/UPX-37 and AN/UPX-41(C) Digital Interrogators (DI) and AN/APX-118 and AN/APX-123 Common Digital Transponder (CXP) program is to replace 20-25 year old hardware and software with reliability and maintenance enhancements through the use of Commercial Off The Shelf / Non Developmental Item COTS/NDI form/fit/function improvements. Incorporation of the Mark XIIA (Mode 5) capability occurred in FY08 and changes nomenclatures from AN/UPX-37 and AN/APX-118(V) to AN/UPX-41(C) and AN/APX-123(V), respectively. Incorporation of the Mark XIIA (Mode S) capability into the AN/UPX-41(C) DI is currently ongoing and will change the DI nomenclature from AN/UPX-41(C) to AN/UPX-45(C).

AN/UPX-24(V) Field Changes will provide hardware updates to accommodate Mode 5 and Mode S functionality in fielded systems. AN/UPX-24(V) Mode S upgrades will provide improved shipboard combat identification by increasing the probability of identification of commercial and neutral aircraft. The AN/UPX-29(V) Interrogator System is deployed on high capability, state of the art surface platforms that require IFF operational performance beyond that provided by a standard Mark XII system for combat identification. Mark XIIA Mode 5 and Mode S provide improved secure cooperative combat identification throughout IFF. Mode 5 and Mode S are product improvements designed to be installed through engineering changes to digital Mark XII interrogators and transponders including AN/APX-118/123(V), AN/UPX-37/41(C), and AN/UPX-24(V).

Tactical Air Navigation (TACAN) Beacon Upgrade funds a replacement of 1970s technology and eliminates pending parts obsolescence.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2851 / ID Systems				Modification Number / Title: 2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032)				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	53.750	3.044	1.991	1.398	-	1.398	1.097	0.940	0.613	0.461	1.202	64.496
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	53.750	3.044	1.991	1.398	-	1.398	1.097	0.940	0.613	0.461	1.202	64.496
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	53.750	3.044	1.991	1.398	-	1.398	1.097	0.940	0.613	0.461	1.202	64.496
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Current Mark XII transponder systems no longer meet operational reliability and maintainability (R&M) requirements due to use beyond their intended life cycle and they suffer a high cost of ownership due to parts obsolescence. Current surface ship Mark XII transponders will be replaced to continue incremental digital and R&M upgrades to the Mark XII IFF system. The common digital transponder uses an open architecture that allows for future growth, including Mode 5 (AN/APX-123(V)) and Mode S which was incorporated into the production line beginning with the FY 2005 procurement. Inventory Objective of 375 is derived from the Naval Data Environment (NDE) database, the Ships & Aircraft Supplemental Data Table (SASDT) and ship/submarine Ship Program Manager (SPM) procurement plans and schedules. Incorporation of the Mark XIIA (Mode 5) capability occurred in FY08 and changed the nomenclature from AN/APX-118(V) to AN/APX-123(V). LRIP AN/APX-123(V) units were installed and operated in legacy-only modes until successful completion of the Mode 5 OPEVAL (MT037) and Full Rate Production decision. Full Rate Production was approved July 2012.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2851 / ID Systems					Modification Number / Title: 2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032)			
Models of Systems Affected: AN/APX-118/AN/APX-123(V)				Modification Type: Reliability				Related RDT&E PEs: 0604777N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: Mark XII/ Mark XIIA Common Digital Transponder (MT032)</i>													
B Kits													
Recurring													
1.1.1) Equipment - NonOrganic ⁽¹⁾	365 / 19.554	- / 0.253	3 / 0.453	- / 0.077	- / -	- / 0.077	2 / 0.148	2 / 0.151	- / 0.055	2 / 0.102	1 / 0.138	375 / 20.931	
1.1.2) Equipment "A" - Organic	- / 0.020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.020	
<i>Subtotal: Recurring</i>	<i>- / 19.574</i>	<i>- / 0.253</i>	<i>- / 0.453</i>	<i>- / 0.077</i>	<i>- / -</i>	<i>- / 0.077</i>	<i>- / 0.148</i>	<i>- / 0.151</i>	<i>- / 0.055</i>	<i>- / 0.102</i>	<i>- / 0.138</i>	<i>- / 20.951</i>	
<i>Subtotal: Mark XII/ Mark XIIA Common Digital Transponder (MT032)</i>	<i>365 / 19.574</i>	<i>- / 0.253</i>	<i>3 / 0.453</i>	<i>- / 0.077</i>	<i>- / -</i>	<i>- / 0.077</i>	<i>2 / 0.148</i>	<i>2 / 0.151</i>	<i>- / 0.055</i>	<i>2 / 0.102</i>	<i>1 / 0.138</i>	<i>375 / 20.951</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 19.574</i>	<i>- / 0.253</i>	<i>- / 0.453</i>	<i>- / 0.077</i>	<i>- / -</i>	<i>- / 0.077</i>	<i>- / 0.148</i>	<i>- / 0.151</i>	<i>- / 0.055</i>	<i>- / 0.102</i>	<i>- / 0.138</i>	<i>- / 20.951</i>	
Support (All Modification Items)													
2.1) ILS	- / 2.702	- / 0.173	- / 0.036	- / 0.016	- / -	- / 0.016	- / 0.013	- / 0.013	- / 0.009	- / 0.004	- / 0.017	- / 2.983	
2.2) PE ⁽²⁾	- / 12.727	- / 2.132	- / 1.134	- / 1.054	- / -	- / 1.054	- / 0.719	- / 0.586	- / 0.375	- / 0.348	- / 0.770	- / 19.845	
2.3) Product Improvement	- / 4.632	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.632	
2.4) Acceptance, Test & Evaluation	- / 2.661	- / 0.059	- / 0.054	- / 0.024	- / -	- / 0.024	- / 0.020	- / 0.020	- / 0.014	- / 0.007	- / 0.025	- / 2.884	
2.5) Depot	- / 0.010	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.010	
2.6) Initial Training	- / 0.822	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.822	
<i>Subtotal: Support</i>	<i>- / 23.554</i>	<i>- / 2.364</i>	<i>- / 1.224</i>	<i>- / 1.094</i>	<i>- / -</i>	<i>- / 1.094</i>	<i>- / 0.752</i>	<i>- / 0.619</i>	<i>- / 0.398</i>	<i>- / 0.359</i>	<i>- / 0.812</i>	<i>- / 31.176</i>	
Installation													
<i>Modification Item 1 of 1: Mark XII/ Mark XIIA Common Digital Transponder (MT032)</i>	<i>- / 10.622</i>	<i>- / 0.427</i>	<i>- / 0.314</i>	<i>- / 0.227</i>	<i>- / -</i>	<i>- / 0.227</i>	<i>- / 0.197</i>	<i>- / 0.170</i>	<i>- / 0.160</i>	<i>- / -</i>	<i>- / 0.252</i>	<i>- / 12.369</i>	
<i>Subtotal: Installation</i>	<i>- / 10.622</i>	<i>- / 0.427</i>	<i>- / 0.314</i>	<i>- / 0.227</i>	<i>- / -</i>	<i>- / 0.227</i>	<i>- / 0.197</i>	<i>- / 0.170</i>	<i>- / 0.160</i>	<i>- / -</i>	<i>- / 0.252</i>	<i>- / 12.369</i>	
Total													
Total Cost (Procurement + Support + Installation)	53.750	3.044	1.991	1.398	-	1.398	1.097	0.940	0.613	0.461	1.202	64.496	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032)

Modification Item 1 of 1: Mark XII/ Mark XIIA Common Digital Transponder (MT032)

Manufacturer Information							
Manufacturer Name: BAE Systems LP ⁽³⁾				Manufacturer Location: Greenlawn, NY			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 24			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016					
Delivery Dates	Mar 2017	Mar 2018					

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	324 / 10.622	14 / 0.427	12 / 0.314	6 / 0.227	- / 0.000	6 / 0.227	- / -	- / -	- / -	- / -	- / 0.000	356 / 11.590
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.197	- / -	- / -	- / -	- / -	3 / 0.197
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.170	- / -	- / -	- / -	2 / 0.170
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.160	- / -	- / -	2 / 0.160
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.168	2 / 0.168
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.084	1 / 0.084
Total	324 / 10.622	14 / 0.427	12 / 0.314	6 / 0.227	- / -	6 / 0.227	3 / 0.197	2 / 0.170	2 / 0.160	- / -	3 / 0.252	366 / 12.369

Installation Schedule																															
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	324	-	-	7	7	4	4	4	-	2	2	2	-	1	1	1	-	1	1	-	-	1	1	-	-	-	-	-	-	3	366
Out	324	-	-	7	7	4	4	4	-	2	2	2	-	1	1	1	-	1	1	-	-	1	1	-	-	-	-	-	-	3	366

Footnotes:
⁽¹⁾ Hardware unit costs include ancillary equipment throughout the FYDP. The number of kits and necessary ancillary hardware required is dependent upon the class of ship; therefore unit costs fluctuate from year to year based on the number of installs planned for the following year(s). 9 additional units were purchased in the prior years to provide to the Mode 5 program contractor as GFE. FY2015, FY2017 and FY2020 shows no procurement quantities, but funding is required for ancillary hardware procurement in those years. Install can not occur until all pieces of equipment are delivered from manufacturer. Deliveries

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 2 / Mark XII/ Mark XIIA Common Digital Transponder (MT032)

occur on a sliding basis beginning 12 months after contract award and completing in 24 months. Extension of budget into FY2023 is due to slide of CG ship availability schedule sliding to the right. Current inventory objective is 375.

(2) Class and Baselines of ships are a significant contributor to the amount required for Production Engineering (PE) to accomplish the IFF capability. Cutting in a new software/hardware configuration due to obsolescence issues.

(3) Production lead time ranges from 12 -24 months.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 3 / AN/UPX 24 (V) Mode S (MT035)
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	25.162	4.611	2.812	3.372	-	3.372	4.815	6.281	6.344	7.310	32.422	93.129
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	25.162	4.611	2.812	3.372	-	3.372	4.815	6.281	6.344	7.310	32.422	93.129
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	25.162	4.611	2.812	3.372	-	3.372	4.815	6.281	6.344	7.310	32.422	93.129
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Incorporation of a Mode S capability in the AN/UPX-24(V) to include an interface with a ship's Combat Systems. Inventory Objective of 119 is derived from the Naval Data Environment database, the Ships & Aircraft Supplemental Data Table and ship/submarine Ship Program Manager procurement plans and schedules.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2851 / ID Systems					Modification Number / Title: 3 / AN/UPX 24 (V) Mode S (MT035)			
Models of Systems Affected: AN/UPX-24(V)				Modification Type: Capability Improvement				Related RDT&E PEs: 0604777N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: AN/UPX 24 (V) Mode S (MT035)</i>													
B Kits													
Non-Recurring													
1.1.1 Equipment - NonOrganic ⁽⁴⁾	9 / 0.858	2 / 0.188	2 / 0.196	3 / 0.349	- / -	3 / 0.349	3 / 0.356	9 / 1.089	16 / 1.974	18 / 2.266	57 / 8.046	119 / 15.322	
<i>Subtotal: Non-Recurring</i>	- / 0.858	- / 0.188	- / 0.196	- / 0.349	- / -	- / 0.349	- / 0.356	- / 1.089	- / 1.974	- / 2.266	- / 8.046	- / 15.322	
<i>Subtotal: AN/UPX 24 (V) Mode S (MT035)</i>	9 / 0.858	2 / 0.188	2 / 0.196	3 / 0.349	- / -	3 / 0.349	3 / 0.356	9 / 1.089	16 / 1.974	18 / 2.266	57 / 8.046	119 / 15.322	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.858	- / 0.188	- / 0.196	- / 0.349	- / -	- / 0.349	- / 0.356	- / 1.089	- / 1.974	- / 2.266	- / 8.046	- / 15.322	
Support (All Modification Items)													
2.1) ILS	- / 2.569	- / -	- / 0.100	- / 0.268	- / -	- / 0.268	- / 0.488	- / 0.463	- / 0.681	- / 0.750	- / 4.568	- / 19.887	
2.2) PE ⁽⁵⁾	- / 5.803	- / 1.081	- / 0.652	- / 1.700	- / -	- / 1.700	- / 3.724	- / 4.487	- / 3.092	- / 3.694	- / 15.158	- / 39.391	
2.3) Product Improvement	- / 14.375	- / 2.976	- / 1.774	- / 0.670	- / -	- / 0.670	- / -	- / -	- / -	- / -	- / -	- / 19.795	
2.4) Acceptance, Test & Evaluation	- / 0.894	- / 0.321	- / -	- / 0.294	- / -	- / 0.294	- / 0.131	- / 0.138	- / 0.183	- / 0.248	- / 0.471	- / 2.680	
2.5) Depot	- / 0.046	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.046	
2.6) Initial Training	- / 0.274	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.274	
<i>Subtotal: Support</i>	- / 23.961	- / 4.378	- / 2.526	- / 2.932	- / -	- / 2.932	- / 4.343	- / 5.088	- / 3.956	- / 4.692	- / 20.197	- / 72.073	
Installation													
<i>Modification Item 1 of 1: AN/UPX 24 (V) Mode S (MT035)</i>													
<i>Subtotal: Installation</i>	- / 0.343	- / 0.045	- / 0.090	- / 0.091	- / -	- / 0.091	- / 0.116	- / 0.104	- / 0.414	- / 0.352	- / 4.179	- / 5.734	
Total													
Total Cost (Procurement + Support + Installation)	25.162	4.611	2.812	3.372	-	3.372	4.815	6.281	6.344	7.310	32.422	93.129	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 3 / AN/UPX 24 (V) Mode S (MT035)

Modification Item 1 of 1: AN/UPX 24 (V) Mode S (MT035)

Manufacturer Information

Manufacturer Name: NAWCAD 4.11.2.1				Manufacturer Location: St. Inigoes, MD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Dec 2015	Dec 2016	Dec 2017				

Installation Information

Method of Implementation: AIT:: Installation Name: Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 0.343	1 / 0.045	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 0.388
FY 2015	- / -	- / -	2 / 0.090	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.090
FY 2016	- / -	- / -	- / -	2 / 0.091	- / -	2 / 0.091	- / -	- / -	- / -	- / -	- / -	2 / 0.091
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.116	- / -	- / -	- / -	- / -	3 / 0.116
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.104	- / -	- / -	- / -	3 / 0.104
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.414	- / -	- / -	9 / 0.414
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.352	- / -	16 / 0.352
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 1.002	18 / 1.002
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	57 / 3.177	57 / 3.177
Total	8 / 0.343	1 / 0.045	2 / 0.090	2 / 0.091	- / -	2 / 0.091	3 / 0.116	3 / 0.104	9 / 0.414	16 / 0.352	75 / 4.179	119 / 5.734

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	1	-	-	-	2	-	-	-	1	1	-	-	1	1	1	-	1	1	1	-	2	3	4	4	4	4	4	75	119
Out	8	-	1	-	-	-	2	-	-	-	1	1	-	-	1	1	1	-	1	1	1	-	2	3	4	4	4	4	4	75	119

Footnotes:

(4) Delayed AN/UPX-24(V) Mode S program to synchronize with the Mode S Digital Interrogator (DI) program. Program delayed due to Federal Aviation Administration (FAA) direction for Department of Defense (DoD) to develop Concept of Operations (CoNOPs) for Mode S implementation. Current Inventory Objective is 119.

(5) Production Engineering fluctuates throughout the FYDP as the program transitions from less complex installs on small number of ship classes with limited combat system configurations some years to installs on multiple ship classes with various additional combat system configurations other years.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2851 / ID Systems						Modification Number / Title: 4 / Mark XII Mode 5 (MT037)		

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	121.070	14.131	19.348	11.295	-	11.295	12.131	8.643	3.308	1.910	4.849	196.685
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	121.070	14.131	19.348	11.295	-	11.295	12.131	8.643	3.308	1.910	4.849	196.685
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	121.070	14.131	19.348	11.295	-	11.295	12.131	8.643	3.308	1.910	4.849	196.685
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Mark XIIA Mode 5 provides improved secure cooperative combat identification throughout Identification Friend or Foe (IFF). Mode 5 is a product improvement which is designed to be installed via engineering changes to digital MarkXII interrogators and transponders including, AN/APX-118/123(V), AN/UPX-37/41(C), and AN/UPX-24(V). Procurements will include Cryptography, Long Lead Items, Low-Rate Initial Production (LRIP) Units, Full Rate Production units, Support/Test Equipment, and associated hardware and software changes for Fleet Modernization Plan (FMP) and non-FMP installations. Mode 5 is designed to be installed in all Navy ships which are currently Mode 4 IFF capable. Milestone C and LRIP was approved in July 2006 and Full Rate Production was approved in July 2012. In March 2007, Joint Requirements Oversight Council Memorandum (JROCM 047-07) endorsed a Mode 5 Joint Full Operational Capability in FY2020.

Procurement and installs differ by 96 units due to Naval Special Warfare Forces, which will be installing their own units.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2851 / ID Systems					Modification Number / Title: 4 / Mark XII Mode 5 (MT037)			
Models of Systems Affected: AN/APX-118/123(V), AN/UPX-37/41(C), AN/UPX-24(V)					Modification Type: Capability Improvement					Related RDT&E PEs: 0604777N			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Mark XII Mode 5 (MT037)													
B Kits													
Non-Recurring													
1.1.1) Equipment - Organic	- / 3.775	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.775	
1.1.2) Mode 5 CXP Systems/Kits - NonOrganic ⁽⁶⁾	349 / 11.396	21 / 0.975	37 / 1.915	14 / 0.220	- / -	14 / 0.220	16 / 0.519	- / -	- / -	- / -	- / -	437 / 15.025	
1.1.3) Mode 5 UPX-24(V) Kits - NonOrganic	78 / 6.147	8 / 0.565	4 / 0.453	7 / 0.623	- / -	7 / 0.623	7 / 0.635	3 / 0.401	- / -	2 / 0.335	1 / 0.284	110 / 9.443	
1.1.4) Mode 5 DI Systems/ Kits - NonOrganic	230 / 11.970	- / -	15 / 1.031	17 / 1.411	- / -	17 / 1.411	19 / 1.453	4 / 0.312	- / -	4 / 0.324	4 / 0.330	293 / 16.831	
<i>Subtotal: Non-Recurring</i>	- / 33.288	- / 1.540	- / 3.399	- / 2.254	- / -	- / 2.254	- / 2.607	- / 0.713	- / -	- / 0.659	- / 0.614	- / 45.074	
<i>Subtotal: Mark XII Mode 5 (MT037)</i>	657 / 33.288	29 / 1.540	56 / 3.399	38 / 2.254	- / -	38 / 2.254	42 / 2.607	7 / 0.713	- / -	6 / 0.659	5 / 0.614	840 / 45.074	
<i>Subtotal: Procurement, All Modification Items</i>	- / 33.288	- / 1.540	- / 3.399	- / 2.254	- / -	- / 2.254	- / 2.607	- / 0.713	- / -	- / 0.659	- / 0.614	- / 45.074	
Support (All Modification Items)													
2.1) Support Equipment	- / 9.013	- / 0.546	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.559	
2.2) ILS ⁽⁷⁾	- / 6.290	- / 0.300	- / 0.772	- / 0.484	- / -	- / 0.484	- / 0.460	- / 0.341	- / 0.165	- / 0.093	- / 0.444	- / 9.349	
2.3) PE	- / 37.658	- / 4.346	- / 6.212	- / 3.444	- / -	- / 3.444	- / 4.292	- / 3.642	- / 2.124	- / 1.116	- / 2.553	- / 65.387	
2.4) Product Improvement	- / 6.586	- / 2.466	- / 1.320	- / 0.446	- / -	- / 0.446	- / 0.444	- / 0.280	- / 0.061	- / 0.042	- / 0.091	- / 11.736	
2.5) Acceptance, Test & Evaluation ⁽⁸⁾	- / 4.220	- / 1.618	- / 0.657	- / 0.643	- / -	- / 0.643	- / 0.206	- / -	- / -	- / -	- / -	- / 7.344	
2.6) Initial Training	- / 0.517	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.517	
<i>Subtotal: Support</i>	- / 64.284	- / 9.276	- / 8.961	- / 5.017	- / -	- / 5.017	- / 5.402	- / 4.263	- / 2.350	- / 1.251	- / 3.088	- / 103.892	
Installation													
<i>Modification Item 1 of 1:</i> Mark XII Mode 5 (MT037)	- / 23.498	- / 3.315	- / 6.988	- / 4.024	- / -	- / 4.024	- / 4.122	- / 3.667	- / 0.958	- / -	- / 1.147	- / 47.719	
<i>Subtotal: Installation</i>	- / 23.498	- / 3.315	- / 6.988	- / 4.024	- / -	- / 4.024	- / 4.122	- / 3.667	- / 0.958	- / -	- / 1.147	- / 47.719	
Total													
Total Cost (Procurement + Support + Installation)	121.070	14.131	19.348	11.295	-	11.295	12.131	8.643	3.308	1.910	4.849	196.685	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 4 / Mark XII Mode 5 (MT037)

Modification Item 1 of 1: Mark XII Mode 5 (MT037)

Manufacturer Information							
Manufacturer Name: BAE Systems LP ⁽⁹⁾				Manufacturer Location: Greenlawn, NY			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 24			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Dec 2016	Dec 2017	Dec 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Mode 5 CXP Systems/Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	184 / 6.958	30 / 1.745	40 / 2.772	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	254 / 11.475
FY 2015	- / -	- / -	13 / 0.722	4 / 0.230	- / -	4 / 0.230	3 / 0.276	- / -	- / -	- / -	- / -	20 / 1.228
FY 2016	- / -	- / -	- / -	32 / 1.840	- / -	32 / 1.840	5 / 0.581	- / -	- / -	- / -	- / -	37 / 2.421
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.445	5 / 0.288	- / -	- / -	- / -	14 / 0.733
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	15 / 1.089	1 / 0.078	- / -	- / -	16 / 1.167
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	184 / 6.958	30 / 1.745	53 / 3.494	36 / 2.070	- / -	36 / 2.070	17 / 1.302	20 / 1.377	1 / 0.078	- / -	- / -	341 / 17.024

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	184	7	7	8	8	14	15	13	11	10	10	8	8	9	3	2	3	7	6	4	3	1	-	-	-	-	-	-	-	-	-
Out	184	7	7	8	8	14	15	13	11	10	10	8	8	9	3	2	3	7	6	4	3	1	-	-	-	-	-	-	-	-	-

Method of Implementation: [none specified]:: Installation Name: Mode 5 UPX-24(V) Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	65 / 3.582	6 / 0.407	7 / 0.445	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	78 / 4.434
FY 2015	- / -	- / -	4 / 0.381	4 / 0.115	- / -	4 / 0.115	- / -	- / -	- / -	- / -	- / -	8 / 0.496

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 4 / Mark XII Mode 5 (MT037)

Modification Item 1 of 1: Mark XII Mode 5 (MT037)

Installation Information

Method of Implementation: [none specified]:: Installation Name: Mode 5 UPX-24(V) Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	2 / 0.173	- / -	2 / 0.173	2 / 0.156	- / -	- / -	- / -	- / -	4 / 0.329
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.399	1 / 0.078	- / -	- / -	- / -	7 / 0.477
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.720	- / -	- / -	- / -	7 / 0.720
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.370	- / -	- / -	3 / 0.370
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.335	2 / 0.335
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.167	1 / 0.167
Total	65 / 3.582	6 / 0.407	11 / 0.826	6 / 0.288	- / -	6 / 0.288	8 / 0.555	8 / 0.798	3 / 0.370	- / -	3 / 0.502	110 / 7.328

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	65	4	1	1	-	4	3	3	1	3	3	-	-	4	2	2	-	3	2	2	1	1	2	-	-	-	-	-	-	3	110
Out	65	4	1	1	-	4	3	3	1	3	3	-	-	4	2	2	-	3	2	2	1	1	2	-	-	-	-	-	-	3	110

Method of Implementation: [none specified]:: Installation Name: Mode 5 DI Systems/ Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	144 / 12.958	18 / 1.163	41 / 2.668	10 / 0.760	- / 0.000	10 / 0.760	17 / 1.167	- / -	- / -	- / -	- / 0.000	230 / 18.716
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	15 / 0.906	- / -	15 / 0.906	- / -	- / -	- / -	- / -	- / -	15 / 0.906
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.098	6 / 0.465	- / -	- / -	- / -	17 / 1.563
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 1.027	2 / 0.155	- / -	- / -	19 / 1.182
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.355	- / -	- / -	4 / 0.355
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.318	4 / 0.318
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.327	4 / 0.327
Total	144 / 12.958	18 / 1.163	41 / 2.668	25 / 1.666	- / -	25 / 1.666	28 / 2.265	23 / 1.492	6 / 0.510	- / -	8 / 0.645	293 / 23.367

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 4 / Mark XII Mode 5 (MT037)

Modification Item 1 of 1: Mark XII Mode 5 (MT037)

Installation Information

Method of Implementation: [none specified]:: Installation Name: Mode 5 DI Systems/ Kits

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	144	4	4	5	5	11	11	10	9	6	7	6	6	8	8	7	5	8	8	4	3	2	2	1	1	-	-	-	-	8	293
Out	144	4	4	5	5	11	11	10	9	6	7	6	6	8	8	7	5	8	8	4	3	2	2	1	1	-	-	-	-	8	293

Footnotes:

- (6) Hardware unit costs include ancillary equipment throughout the FYDP. The number of kits and necessary ancillary hardware required is dependent upon the class of ship; therefore unit costs fluctuate from year to year based on the number of installs planned for the following year(s). Increase in quantities is due to adding ships back into the program that did not decommission and requirement changes for various platforms. Delta between procurements and installations is due to the (procurement only) Naval Special Warfare units. The Support Equipment (SE) line consists of buying USM-719 (Test Sets) and KIV-78 (crypto appliques). Deliveries occur on a sliding basis, beginning 12 months after contract award and completing 24 months. Install of equipment can not occur until receipt of all 3 pieces of equipment have been delivered from manufacturer. Inventory Objectives are as follows: Mode 5 CXP kits is 437, Mode 5 UPX-24(V) Kits is 110, and Mode 5 DI Kits is 293.
- (7) Integrated Logistics Support (ILS) costs between fiscal years exceed inflation because they are not solely determined by number of procurements. This cost element is impacted by the amount of documentation and logistics work needed because of the differences between ship classes.
- (8) Acceptance Test & Evaluation (AT&E) costs between fiscal years exceed inflation because they are not solely determined by number of procurements. This cost element is impacted by the amount of documentation and logistics work needed because of the differences of complexity between ship classes.
- (9) Production lead time ranges from 12 -24 months. Deliveries from the Original Equipment Manufacturer (OEM) commence 12 months after contract award and conclude 24 months after award (i.e. the delivery date on the P-3a is the date of the first delivery, not the date when all items are delivered); installations then occur within the allotted 12 months from when each kit is delivered. Once delivered, additional efforts are required by the In-Service Engineering Activity to produce ready for issue units from kits, and build and test complete systems with ancillary hardware prior to fleet installs.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 5 / TACAN System Upgrade (MT038)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	18.718	2.531	3.837	3.744	-	3.744	4.021	4.028	4.122	4.200	31.349	76.550
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	18.718	2.531	3.837	3.744	-	3.744	4.021	4.028	4.122	4.200	31.349	76.550
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	18.718	2.531	3.837	3.744	-	3.744	4.021	4.028	4.122	4.200	31.349	76.550

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Ship Tactical Air Navigation (TACAN) system upgrade. Upgrades will include digital/COTS upgrade to 1970's technology TACAN beacon and reduce parts obsolescence. Inventory Objective of 206 is derived from the Naval Data Environment (NDE) database, the Ships & Aircraft Supplemental Data Table (SASDT), ship/submarine Ship Program Manager (SPM) procurement plans and schedules and JPALS projected FOC.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2851 / ID Systems					Modification Number / Title: 5 / TACAN System Upgrade (MT038)			
Models of Systems Affected: AN/URN-25				Modification Type: Reliability				Related RDT&E PEs: 0604777N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: TACAN System Upgrade (MT038)</i>													
B Kits													
Non-Recurring													
1.1.1) Equipment - NonOrganic	45 / 9.439	4 / 0.706	14 / 3.150	14 / 2.798	- / -	14 / 2.798	14 / 3.038	14 / 3.104	14 / 3.064	14 / 3.322	73 / 19.498	206 / 48.119	
<i>Subtotal: Non-Recurring</i>	- / 9.439	- / 0.706	- / 3.150	- / 2.798	- / -	- / 2.798	- / 3.038	- / 3.104	- / 3.064	- / 3.322	- / 19.498	- / 48.119	
<i>Subtotal: TACAN System Upgrade (MT038)</i>	45 / 9.439	4 / 0.706	14 / 3.150	14 / 2.798	- / -	14 / 2.798	14 / 3.038	14 / 3.104	14 / 3.064	14 / 3.322	73 / 19.498	206 / 48.119	
<i>Subtotal: Procurement, All Modification Items</i>	- / 9.439	- / 0.706	- / 3.150	- / 2.798	- / -	- / 2.798	- / 3.038	- / 3.104	- / 3.064	- / 3.322	- / 19.498	- / 48.119	
Support (All Modification Items)													
2.1) ILS	- / 0.553	- / 0.342	- / 0.031	- / 0.032	- / -	- / 0.032	- / 0.032	- / 0.033	- / 0.035	- / 0.035	- / 0.096	- / 1.189	
2.2) PE	- / 7.047	- / 0.435	- / 0.316	- / 0.321	- / -	- / 0.321	- / 0.327	- / 0.267	- / 0.273	- / -	- / 3.698	- / 12.684	
2.3) Acceptance, Test & Evaluation	- / 0.100	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.117	- / 0.217	
2.4) Initial Training	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.087	- / 0.087	
<i>Subtotal: Support</i>	- / 7.700	- / 0.777	- / 0.347	- / 0.353	- / -	- / 0.353	- / 0.359	- / 0.300	- / 0.308	- / 0.035	- / 3.998	- / 14.177	
Installation													
<i>Modification Item 1 of 1: TACAN System Upgrade (MT038)</i>	- / 1.579	- / 1.048	- / 0.340	- / 0.593	- / -	- / 0.593	- / 0.624	- / 0.624	- / 0.750	- / 0.843	- / 7.853	- / 14.254	
<i>Subtotal: Installation</i>	- / 1.579	- / 1.048	- / 0.340	- / 0.593	- / -	- / 0.593	- / 0.624	- / 0.624	- / 0.750	- / 0.843	- / 7.853	- / 14.254	
Total													
Total Cost (Procurement + Support + Installation)	18.718	2.531	3.837	3.744	-	3.744	4.021	4.028	4.122	4.200	31.349	76.550	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 5 / TACAN System Upgrade (MT038)

Modification Item 1 of 1: TACAN System Upgrade (MT038)

Manufacturer Information

Manufacturer Name: Moog, Inc	Manufacturer Location: Salt Lake City, Utah
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014	Nov 2015	Nov 2016				
Delivery Dates	Nov 2015	Nov 2016	Nov 2017				

Installation Information

Method of Implementation: AIT:: Installation Name: Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	28 / 1.579	17 / 1.048	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	45 / 2.627
FY 2015	- / -	- / -	4 / 0.340	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.340
FY 2016	- / -	- / -	- / -	14 / 0.593	- / -	14 / 0.593	- / -	- / -	- / -	- / -	- / -	14 / 0.593
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.624	- / -	- / -	- / -	- / -	14 / 0.624
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.624	- / -	- / -	- / -	14 / 0.624
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.750	- / -	- / -	14 / 0.750
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.843	- / -	14 / 0.843
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	14 / 0.981	14 / 0.981
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	73 / 6.872	73 / 6.872
Total	28 / 1.579	17 / 1.048	4 / 0.340	14 / 0.593	- / -	14 / 0.593	14 / 0.624	14 / 0.624	14 / 0.750	14 / 0.843	87 / 7.853	206 / 14.254

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	28	4	4	4	5	3	1	-	-	3	3	4	4	3	3	4	4	3	3	4	4	3	3	4	4	4	4	3	3	87	206
Out	28	4	4	4	5	3	1	-	-	3	3	4	4	3	3	4	4	3	3	4	4	3	3	4	4	4	4	3	3	87	206

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Exhibit P-3a, Individual Modification: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9				P-1 Line Item Number / Title: 2851 / ID Systems				Modification Number / Title: 6 / Mode S Digital Interrogator (MT040)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	20.999	3.768	1.688	2.368	-	2.368	4.647	5.497	5.116	5.969	26.814	76.866
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	20.999	3.768	1.688	2.368	-	2.368	4.647	5.497	5.116	5.969	26.814	76.866
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	20.999	3.768	1.688	2.368	-	2.368	4.647	5.497	5.116	5.969	26.814	76.866
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Adds Mode Select (S) Beacon System commercial aircraft interrogation capability to shipboard IFF Digital Interrogators (DIs). Incorporation of a Mode S capability in the AN/UPX-41(C) will result in a nomenclature change to AN/UPX-45(C). In some installations, such as Aircraft Carriers, incorporation of the Mode S capability in the DI will include an interface with a ship's Air Traffic Control System. Mode S provides improved aircraft surveillance and communications necessary to support air traffic control automation in the dense traffic environments. Mode S provides more accurate aircraft positional information and minimizes interference by discrete interrogation of each Mode S transponder-equipped aircraft and improved processing of aircraft replies. In addition, Mode S provides the medium for a digital data link, which can be used to exchange information between aircraft and various air traffic control functions and weather databases. Inventory Objective of 313 is derived from the Naval Data Environment (NDE) database, the Ships & Aircraft Supplemental Data Table (SASDT) and ship/submarine Ship Program Manager (SPM) procurement plans and schedules.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9					P-1 Line Item Number / Title: 2851 / ID Systems					Modification Number / Title: 6 / Mode S Digital Interrogator (MT040)			
Models of Systems Affected: AN/UPX-37/ ANUPX-41(V)				Modification Type: Capability Improvement				Related RDT&E PEs: 0604777N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Mode S Digital Interrogator (MT040)													
B Kits													
Non-Recurring													
1.1.1) Equipment - NonOrganic	13 / 0.140	1 / 0.012	1 / 0.013	6 / 0.068	- / -	6 / 0.068	8 / 0.092	28 / 0.328	56 / 0.670	48 / 0.586	152 / 1.970	313 / 3.879	
<i>Subtotal: Non-Recurring</i>	- / 0.140	- / 0.012	- / 0.013	- / 0.068	- / -	- / 0.068	- / 0.092	- / 0.328	- / 0.670	- / 0.586	- / 1.970	- / 3.879	
<i>Subtotal: Mode S Digital Interrogator (MT040)</i>	13 / 0.140	1 / 0.012	1 / 0.013	6 / 0.068	- / -	6 / 0.068	8 / 0.092	28 / 0.328	56 / 0.670	48 / 0.586	152 / 1.970	313 / 3.879	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.140	- / 0.012	- / 0.013	- / 0.068	- / -	- / 0.068	- / 0.092	- / 0.328	- / 0.670	- / 0.586	- / 1.970	- / 3.879	
Support (All Modification Items)													
2.1) Support Equipment	- / 0.688	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.688	
2.2) ILS	- / 1.360	- / 0.544	- / 0.181	- / 0.245	- / -	- / 0.245	- / 0.473	- / 0.435	- / 0.698	- / 0.800	- / 4.095	- / 8.831	
2.3) PE ⁽¹⁰⁾	- / 14.837	- / 2.099	- / 1.071	- / 1.631	- / -	- / 1.631	- / 3.904	- / 4.500	- / 3.018	- / 3.525	- / 14.364	- / 48.949	
2.4) Product Improvement	- / 1.936	- / 0.493	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.429	
2.5) Acceptance, Test & Evaluation	- / 1.075	- / 0.620	- / 0.400	- / 0.400	- / -	- / 0.400	- / 0.052	- / 0.071	- / 0.254	- / 0.518	- / 1.911	- / 5.301	
2.6) Depot	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200	
2.7) Initial Training	- / 0.423	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.423	
<i>Subtotal: Support</i>	- / 20.519	- / 3.756	- / 1.652	- / 2.276	- / -	- / 2.276	- / 4.429	- / 5.006	- / 3.970	- / 4.843	- / 20.370	- / 66.821	
Installation													
<i>Modification Item 1 of 1:</i> Mode S Digital Interrogator (MT040)													
<i>Subtotal: Installation</i>	- / 0.340	- / -	- / 0.023	- / 0.024	- / -	- / 0.024	- / 0.126	- / 0.163	- / 0.476	- / 0.540	- / 4.474	- / 6.166	
Total													
Total Cost (Procurement + Support + Installation)	20.999	3.768	1.688	2.368	-	2.368	4.647	5.497	5.116	5.969	26.814	76.866	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 6 / Mode S Digital Interrogator (MT040)

Modification Item 1 of 1: Mode S Digital Interrogator (MT040)

Manufacturer Information

Manufacturer Name: BAE Systems LP	Manufacturer Location: Greenlawn, NY
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Dec 2015	Dec 2016	Dec 2017				

Installation Information

Method of Implementation: AIT:: Installation Name: Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	13 / 0.340	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	13 / 0.340
FY 2015	- / -	- / -	1 / 0.023	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.023
FY 2016	- / -	- / -	- / -	1 / 0.024	- / -	1 / 0.024	- / -	- / -	- / -	- / -	- / -	1 / 0.024
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.126	- / -	- / -	- / -	- / -	6 / 0.126
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.163	- / -	- / -	- / -	8 / 0.163
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 0.476	- / -	- / -	28 / 0.476
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 0.540	- / -	56 / 0.540
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	48 / 1.074	48 / 1.074
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	152 / 3.400	152 / 3.400
Total	13 / 0.340	- / -	1 / 0.023	1 / 0.024	- / -	1 / 0.024	6 / 0.126	8 / 0.163	28 / 0.476	56 / 0.540	200 / 4.474	313 / 6.166

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	13	-	-	-	-	1	-	-	-	-	1	-	-	2	1	1	2	2	2	2	2	7	7	7	7	14	14	14	14	200	313
Out	13	-	-	-	-	1	-	-	-	-	1	-	-	2	1	1	2	2	2	2	2	7	7	7	7	14	14	14	14	200	313

Footnotes:

⁽¹⁰⁾ Production Engineering fluctuates throughout the FYDP as the program transitions from installs on small number of ship classes with limited combat system configurations some years to installs on multiple ship classes with various additional combat system configurations other years.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 7 / OE-120/UPX Antenna (MT041)
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	3.261	9.769	10.038	230.079	253.147
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	3.261	9.769	10.038	230.079	253.147
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	3.261	9.769	10.038	230.079	253.147

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The OE-120()/UPX antenna radiates Identification Friend or Foe (IFF) encoded radio frequency (RF) challenge pulses into space and receives the resultant IFF encoded RF transponder replies from space. Current surface ship OE-120()/UPX antenna systems will receive upgrade kits to improve system R&M. The upgrade kits will use open architecture and current technology that allows for continued production and future growth Inventory Objective of 60 is derived from the Naval Data Environment (NDE) database, the Ships & Aircraft Supplemental Data Table (SASDT), and procurement plans and schedules. An ECP has been awarded to the OEM to deliver and EDM for shipboard test and evaluation in fiscal year 2018.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9 **P-1 Line Item Number / Title:** 2851 / ID Systems **Modification Number / Title:** 7 / OE-120/UPX Antenna (MT041)

Models of Systems Affected: OE-120()/UPX Antenna Group **Modification Type:** Reliability **Related RDT&E PEs:** 0604777N

Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> OE-120/UPX Antenna (MT041)												
B Kits												
Non-Recurring												
1.1.1) Equipment - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 6.359	3 / 6.485	54 / 138.038	60 / 150.882
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.359	- / 6.485	- / 138.038	- / 150.882
<i>Subtotal: OE-120/UPX Antenna (MT041)</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 6.359	3 / 6.485	54 / 138.038	60 / 150.882
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.359	- / 6.485	- / 138.038	- / 150.882
Support (All Modification Items)												
2.1) ILS ⁽¹¹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.732	- / 0.369	- / 0.188	- / 3.575	- / 4.864
2.2) PE ⁽¹²⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.428	- / 2.402	- / 2.734	- / 36.562	- / 43.126
2.3) Product Improvement	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.675	- / 21.675
2.4) Acceptance, Test & Evaluation ⁽¹³⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.101	- / 0.639	- / 0.631	- / 10.076	- / 12.447
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.261	- / 3.410	- / 3.553	- / 71.888	- / 82.112
Installation												
<i>Modification Item 1 of 1:</i> OE-120/UPX Antenna (MT041)	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.153	- / 20.153
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.153	- / 20.153
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	3.261	9.769	10.038	230.079	253.147

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2851 / ID Systems	Modification Number / Title: 7 / OE-120/UPX Antenna (MT041)

Modification Item 1 of 1: OE-120/UPX Antenna (MT041)

Manufacturer Information							
Manufacturer Name: TBD				Manufacturer Location: TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 22			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.672	3 / 0.672
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.008	3 / 1.008
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	54 / 18.473	54 / 18.473
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 20.153	60 / 20.153

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	60	60

Footnotes:

- (11) Support costs are required prior to hardware buy because, there are ILS tasks that need to be completed before hardware contract award.
- (12) Support costs are required prior to hardware buy because, there are PE tasks that need to be completed before hardware contract award.
- (13) Acceptance, Test & Evaluation funding is required to start testing various ship baselines before actual installations can occur in the out years.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment

P-1 Line Item Number / Title:
2876 / Naval Mission Planning Systems

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

Line Item MDAP/MAIS Code: N/A **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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	208.135	13.950	13.737	14.273	-	14.273	11.945	12.149	12.371	12.617	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	208.135	13.950	13.737	14.273	-	14.273	11.945	12.149	12.371	12.617	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	208.135	13.950	13.737	14.273	-	14.273	11.945	12.149	12.371	12.617	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.736	-	0.377	-	0.377	-	-	-	-	-	1.113
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Naval Mission Planning Systems by \$0.608M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

This line item provides funding to procure Joint Mission Planning System (JMPS) workstations, Software/Production Engineering Support and Integrated Logistics Support (ILS). JMPS is the Chief of Naval Operation's (CNO) designated automated mission planning system for the Navy, supporting over 40 T/M/S. Future JMPS platforms include: MQ-4C (Triton), P-8 and CH-53K. JMPS enables weapon system employment by providing the information and decision aids needed to rapidly plan aircraft, weapon or sensor missions, load mission data into aircraft and weapons, conduct mission rehearsal and post mission analysis. JMPS consists of two types of workstations - Maritime (JMPS-M) and Expeditionary (JMPS-E). JMPS-M is the primary product within the Naval Mission Planning System (NavMPS). The Navy's modern aircraft need data loaded from JMPS-M to fly their missions. As weapons become increasingly advanced, they will require increased quantity and fidelity of data to support mission planning. These data requirements will require additional advanced processors and greater amounts of continuous memory. JMPS-M flight planning seats refer to the computer workstations that employ the JMPS framework software. JMPS-E is a tailorable and collaborative web-based mission planning system for the Amphibious Ready Group (ARG) Amphibious Squadron (PHIBRON). Program cost is not directly related to FY hardware quantity; software is a cost factor independent of FY hardware quantity and cost. Funding profile accounts for required four year workstations refresh to preclude aging hardware, increased failure rates, emerging technology; such as Electronic Kneeboard (EKB) and increased memory requirements.

Prior to FY17, the EKB was funded in BLI 4268.

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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 02: Communications & Electronics Equip / BSA 9: Aviation Electronic Equipment	P-1 Line Item Number / Title: 2876 / Naval Mission Planning Systems
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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
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Naval Mission Planning Systems	P-5a		- / 208.135	- / 13.950	- / 13.737	- / 14.273	- / -	- / 14.273
P-40	Total Gross/Weapon System Cost			- / 208.135	- / 13.950	- / 13.737	- / 14.273	- / -	- / 14.273

*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:

Items to be funded in this line include:

Workstation Components - JMPS-M and JMPS-E procure tactical computer hardware through a non-developmental item acquisition strategy. Tactical computer equipment is used to plan and analyze expeditionary missions and aircraft routes under various mission configurations and operational threat environments. Primary outputs are tasking orders, courses of action (COAs), route plans, and mission essential data loads for mission execution. New workstations consist of aircraft unique data transfer devices and interfaces, Memory Data Loader Receptacles (MDLR) Small Computer Standard Interface (SCSI) (MDLR-S), Electronic Kneeboard (EKB), Common Munitions Bit Reprogramming Equipment (CMBRE), Ogden Data Device Ethernet Crypto (ODD-EC), Data Storage Unit Receptacle SCSI (DSUR-S), network hubs, printers, fleet training school workstations, JMPS Application Central Access Library (JACAL), and other peripheral devices for USN/USNR/USMC/USMCR missions. Legacy data loader receptacle failures in addition to computer interface obsolescence and an inability to influence airframe changes for legacy aircraft in sustainment, drive a need to obtain a new data loader using a more extensive interface. JMPS Authority to Operate (ATO) requires compliance with Naval Network Warfare Command (NNWC)-issued Information Assurance (IA) mandates and Communications Tasking Orders (CTOs).

Software/Production Engineering Support - The NavMPS program produces software releases via an evolutionary development process. These releases contain enhancements based on fleet inputs and technology challenges. They also contain changes required to retain compatibility with supported platforms, associated weapons, and threat and imagery databases providing input to NavMPS. Software releases are independent of hardware buys. Cost element includes production support services, engineering support services, independent verification and validation test and acceptance, site activation, IA compliance and quality assurance efforts.

Integrated Logistics Support - Site surveys, prepare site installation drawings, on-site engineering and logistics evaluations for installations and delivery systems comply with the specified configuration. This includes the production and delivery of technical documentation and training materials such as OPNOTES, installation instructions, user manuals required during the fielding of NavMPS products. ILS is a cost factor independent of FY hardware quantity and cost.

FY17 provides funding to procure seven hundred fifty (750) JMPS-M flight planning seats, and five (5) JMPS-E workstations, Electronic Kneeboards (EKB), and other JMPS support equipment; the continuation of enhancements of software releases based on fleet inputs, emerging technologies, IA compliance and associated logistics support. FY17 laptop procurement supports MH-53E, CNATRA (training aircraft), C-2, E-2C, E-2D, VH-3/60, NLH, AH-1, UH-1, AV-8B, JMPS-E, CH-53E, and CH-53K. Additionally, funding provides for database systems with storage space capable of storing National Geospatial-Intelligence Agency (NGA) world-wide map data with associated network hardware. This will provide the Fleet with the required storage for map data, Digital Terrain Elevation Data (DTED) and imagery necessary to plan missions. EKB provides inflight mission planning, flight administration, and situational awareness data in a tablet form.

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Exhibit P-5, Cost Analysis: PB 2017 Navy											Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9						P-1 Line Item Number / Title: 2876 / Naval Mission Planning Systems					Item Number / Title [DODIC]: 1 / Naval Mission Planning Systems				
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)				208.135		13.950		13.737		14.273		-		14.273	
Less PY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Net Procurement (P-1) (\$ in Millions)				208.135		13.950		13.737		14.273		-		14.273	
Plus CY Advance Procurement (\$ in Millions)				-		-		-		-		-		-	
Total Obligation Authority (\$ in Millions)				208.135		13.950		13.737		14.273		-		14.273	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>															
Initial Spares (\$ in Millions)				-		0.736		-		0.377		-		0.377	
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.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware - JMPS Hardware Cost																		
Recurring Cost																		
1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT ^(†) (1)	4,858.58	8,924	43.358	3,392.00	750	2.544	3,450.14	750	2.588	4,000.00	750	3.000	-	-	-	4,000.00	750	3.000
1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE ^(†) (2)	5,175.68	222	1.149	3,392.00	5	0.017	3,450.14	5	0.017	4,000.00	5	0.020	-	-	-	4,000.00	5	0.020
1.1.3) S7850 JMPS-M Support Equipment ⁽³⁾	-	-	5.369	-	-	2.572	-	-	2.572	-	-	3.135	-	-	-	-	-	3.135
1.1.4) S7851 JMPS-E Support Equipment ⁽⁴⁾	-	-	0.022	-	-	0.020	-	-	0.022	-	-	0.021	-	-	-	-	-	0.021
<i>Subtotal: Recurring Cost</i>	-	-	49.898	-	-	5.153	-	-	5.199	-	-	6.176	-	-	-	-	-	6.176
<i>Subtotal: Hardware - JMPS Hardware Cost</i>	-	-	49.898	-	-	5.153	-	-	5.199	-	-	6.176	-	-	-	-	-	6.176
Support Cost																		
3.1) S7820 Other Costs	-	-	152.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2) S7830 Software/ Production Engineering Support ⁽⁵⁾	-	-	5.464	-	-	7.584	-	-	7.286	-	-	6.812	-	-	-	-	-	6.812
3.3) S7800 Integrated Logistics Support ⁽⁶⁾	-	-	0.758	-	-	1.213	-	-	1.252	-	-	1.285	-	-	-	-	-	1.285
<i>Subtotal: Support Cost</i>	-	-	158.237	-	-	8.797	-	-	8.538	-	-	8.097	-	-	-	-	-	8.097

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2876 / Naval Mission Planning Systems	Item Number / Title [DODIC]: 1 / Naval Mission Planning Systems
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	208.135	-	-	13.950	-	-	13.737	-	-	14.273	-	-	-	-	-	14.273

(t) indicates the presence of a P-5a

Footnotes:

- (1) FY17 unit cost and total cost only reflect JMPS-M laptop procurement. Quantities reflect JMPS-M laptop procurement. Quantities adjusted to meet Fleet demand and number of Mission Planning Environments/aircraft supported (over 40 T/M/S by FY17). JMPS laptop quantities are currently based on Fleet demand which is validated by CNAF. FY17-21 laptop unit costs are based on current laptop model (GETAC X500), plus inflation and additional costs associated with the introduction of the Electronic Kneeboard (EKB) due to additional data storage, multiple communication ports for data transfer and peripheral requirements. The laptop candidates determined by Fleet requirements and COTS/Military spec software/hardware compatibility.
- (2) FY17 unit cost and total cost only reflect JMPS-E laptop procurement. Quantities reflect JMPS-E laptop procurement. Quantities adjusted to meet Fleet demand. FY17-21 laptop unit costs are based on current laptop model (GETAC X500), plus inflation and additional costs associated with the introduction of the Electronic Kneeboard (EKB) due to additional data storage, multiple communication ports for data transfer and peripheral requirements. The laptop candidates determined by Fleet requirements and COTS/Military spec software/hardware compatibility.
- (3) Support Equipment includes storage devices, network hubs, printers, initial fleet training school workstations, Advanced Data Loader Receptacles, Electronic Kneeboards (EKB), Common Munitions Bit Reprogramming Equipment (CMBRE), and other peripheral devices for USN/USNR/USMC/USMCR missions. Support Equipment adjusted to meet Fleet demand and number of Mission Planning Environments/aircraft supported (over 40 T/M/S by FY17). FY17 provides the Fleet support equipment for SIPRNET Public Key Infrastructure (PKI) Information Assurance compliance and increased memory/storage requirements.
- (4) Support Equipment includes storage devices, network hubs, printers, and other peripheral devices for USN/USNR/USMC/USMCR missions.
- (5) FY17 Software/Production Engineering Support increase due to the number of Mission Planning Environments/aircraft supported (over 40 T/M/S by FY17) and Information Assurance (IA) mandates.
- (6) Integrated Logistics Support provides JMPS technical documentation, training materials and installation instructions that are compliant with Information Assurance (IA) mandates and Communications Tasking Orders (CTOs) for newly deployed platforms.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 9	P-1 Line Item Number / Title: 2876 / Naval Mission Planning Systems	Item Number / Title [DODIC]: 1 / Naval Mission Planning Systems
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT		2015 ⁽⁷⁾	NCS Technologies / Gainsville, VA	C / FFP	NAWCWD, Point Mugu	Jun 2015	Jul 2015	750	3,392.00	Y		Jan 2015
1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT		2016 ⁽⁸⁾	TBD / TBD	TBD	NAWCAD, Lakehurst	Feb 2016	Mar 2016	750	3,450.14	N	Dec 2015	Oct 2015
1.1.1) S7403 JMPS-M FLIGHT PLANNING SEAT		2017 ⁽⁹⁾	TBD / TBD	TBD	NAWCAD, Lakehurst	Feb 2017	Mar 2017	750	4,000.00	N	Dec 2015	Oct 2015
1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE		2015 ⁽¹⁰⁾	NCS Technologies / Gainsville, VA	C / FFP	NAWCWD, Point Mugu	Jun 2015	Jul 2015	5	3,392.00	Y		Jan 2015
1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE		2016 ⁽¹¹⁾	TBD / TBD	C / FFP	NAWCAD, Lakehurst	Feb 2016	Mar 2016	5	3,450.14	N	Dec 2015	Oct 2015
1.1.2) S7408 JMPS-E EXPEDITIONARY WARFARE		2017 ⁽¹²⁾	TBD / TBD	C / FFP	NAWCAD, Lakehurst	Feb 2017	Mar 2017	5	4,000.00	N	Dec 2015	Oct 2015

Footnotes:

⁽⁷⁾ FY15 contract award was delayed until June 2015 due to the late release of an RFP.

⁽⁸⁾ JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective. In FY16/17, the procurement contract will be a competitive award. The performing activity and location are currently TBD due to the competitive contracting strategy.

⁽⁹⁾ JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective. In FY16/17, the procurement contract will be a competitive award. The performing activity and location are currently TBD due to the competitive contracting strategy.

⁽¹⁰⁾ FY15 contract award was delayed until June 2015 due to the late release of an RFP.

⁽¹¹⁾ JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective. In FY16/17, the procurement contract will be a competitive award. The performing activity and location are currently TBD due to the competitive contracting strategy.

⁽¹²⁾ JMPS laptops are procured every two years where pricing and fleet requirements are evaluated to ensure JMPS laptops meet fleet requirements while remaining cost effective. In FY16/17, the procurement contract will be a competitive award. The performing activity and location are currently TBD due to the competitive contracting strategy.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2804 / Depl JT Cmd & Control (DJC2)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603237N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	160.198	1.205	1.314	-	-	-	-	-	-	-	-	162.717
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	160.198	1.205	1.314	-	-	-	-	-	-	-	-	162.717
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	160.198	1.205	1.314	-	-	-	-	-	-	-	-	162.717

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.295	0.293	-	-	-	-	-	-	-	-	0.588
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Deployable Joint Command and Control (DJC2) provides a self-contained, standardized, rapidly deployable, modular, scalable, and reconfigurable joint command and control (C2) capability to designated Geographic Combatant Commands (GCCs). DJC2 is the materiel solution to Defense Planning Guidance that called for the development of standing Joint Task Forces (JTF) with a deployable C2 capability. DJC2 will ensure that Joint Force Commanders (JFC) are equipped as well as trained and organized to carry out their C2 responsibilities. DJC2 provides GCCs and JFCs a mission critical, integrated family of systems with which to plan, control, coordinate, execute and assess operations. It is designed to deploy rapidly, set up within hours and quickly provide necessary C2 mission and collaboration functionality across the full spectrum of JTF operations. The DJC2 has also been deployed in support of Humanitarian Assistance and Disaster Relief (HA/DR) efforts. The capability is intended for all levels of conflict and will be reconfigurable to meet specific GCC and JTF mission requirements. This capability is interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.

DJC2 sites are as follows: 6 DJC2 core systems garrisoned at USSOUTHCOM Tampa, Florida (1), USEUCOM Stuttgart, Germany (1), AFRICOM (SETAF) Vicenza, Italy (1), USPACOM Camp Smith, Hawaii (1), Marine Expeditionary Force (III MEF) Camp Hansen, Japan (1), and NAVEUR-NAVAF, JFC Naples, Italy (1).

Note that DJC2 is not a follow-on or replacement system for the Global Command and Control System-Joint (GCCS-J); rather, DJC2 employs a suite of applications, ensuring interoperability with the worldwide-installed base of GCCS-J.

Funding for FY17 and out has been moved to BLI 2906 as part of the BLI consolidation effort.

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2804 / Depl JT Cmd & Control (DJC2)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603237N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Depl JT Cmd & Control (DJC2)	P-5a		- / 160.198	- / 1.205	- / 1.314	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 160.198	- / 1.205	- / 1.314	- / -	- / -	- / -

*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.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2804 / Depl JT Cmd & Control (DJC2)	Item Number / Title [DODIC]: 1 / Depl JT Cmd & Control (DJC2)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	160.198	1.205	1.314	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	160.198	1.205	1.314	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	160.198	1.205	1.314	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	0.295	0.293	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway - Increment I RRK/EoIP Enhancements (JH400) Cost																		
Non Recurring Cost																		
1.1.1) Increment I RRK/EoIP Enhancements	-	-	1.830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	1.830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - Increment I RRK/EoIP Enhancements (JH400) Cost</i>	-	-	1.830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway - Increment I System Enhancements (JH500) Cost																		
Recurring Cost																		
2.1.1) Increment I System Enhancements ^(†) (1)	7,918.400	20	158.368	200.833	6	1.205	219.000	6	1.314	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	158.368	-	-	1.205	-	-	1.314	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - Increment I System Enhancements (JH500) Cost</i>	-	-	158.368	-	-	1.205	-	-	1.314	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	160.198	-	-	1.205	-	-	1.314	-	-	-	-	-	-	-	-	-

(†) indicates the presence of a P-5a

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2804 / Depl JT Cmd & Control (DJC2)	Item Number / Title [DODIC]: 1 / Depl JT Cmd & Control (DJC2)
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

Footnotes:
(1) Quantities listed represent DJC2 core system sites. Unit costs vary due to the number or level of core system enhancements performed at each site from year to year.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2804 / Depl JT Cmd & Control (DJC2)	Item Number / Title [DODIC]: 1 / Depl JT Cmd & Control (DJC2)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
2.1.1) Increment I System Enhancements		2015	DLA / Ft Belvoir, VA	WR	San Diego, CA	Aug 2015	Nov 2015	6	200.833	Y		
2.1.1) Increment I System Enhancements		2016	DLA / Ft Belvoir, VA	WR	San Diego, CA	Dec 2015	Dec 2015	6	219.000	Y		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	78.903	3.447	-	-	-	-	-	-	-	-	-	82.350
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	78.903	3.447	-	-	-	-	-	-	-	-	-	82.350
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	78.903	3.447	-	-	-	-	-	-	-	-	-	82.350

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Maritime Integrated Broadcast Service (MIBS): Project charter is to deliver Integrated Broadcast Service (IBS) data to operational and tactical decision makers aboard United States Navy surface ships, shore headquarters, and other joint platforms. It disseminates organic and non-organic derived data from Navy platforms to other theater tactical, operational, and strategic users. MIBS will give the Navy a capability to receive, transmit, and deliver near real time IBS data, enhancing the Common Operational Picture (COP) supporting operations in all warfare areas, including Ballistic Missile Defense (BMD), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASW), Undersea Warfare (UW), and Electronic Warfare (EW).

DH530: Joint Tactical Terminal - Maritime (JTT-M) (AN/USQ-151) System is a Ultra High Frequency Satellite Communications system that will give the shipboard and ashore users the capability to participate in national and joint theater level tactical intelligence data exchange through the IBS network using Integrated Broadcast Service-Simplex (IBS-S) and IBS-Interactive (IBS-I) data. The IBS networks feed the Common Operational Intelligence Picture and Maritime Domain Awareness with critical data, supports operational and strategic decision makers at component and combatant commander levels. JTT interfaces with Joint BMD systems to include: Aegis BMD, Theatre High Altitude Area Defense Missile System, and Patriot. JTT-M supports international naval relationships with IBS partner nations through interoperability, enables warfighters with national and theater tactical intelligence support in all warfare areas, strengthens collaborative environment for joint warfighting, and enhances effects based strike with increased Measure of Effectiveness (MOE) data set availability.

JTT-M system (AN/USQ-151) will replace legacy terminals (Tactical Receive Equipment (TRE) and Commanders Tactical Terminal (CTT)), that will become obsolete with the National Security Agency (NSA) crypto modernization mandate, as well as be able to provide IBS capability to Aegis platforms without IBS terminals.

DH530: AN/USC-62 Upgrade Kits: The JTT-M AN/USQ -151 system is comprised of an AN/USC-62, JTT - Senior (Sr) subsystem, an operator workstation, and various pieces of equipment needed to interface and integrate the terminal into a Navy platform. The AN/USC-62 Upgrade Kits will enable compliance with NSA crypto modernization mandate, Common Message Format (CMF) and Common Integrated Broadcast (CIB) waveform.

DH530: Universal Computers: The procurement of new Grade A Universal Computers is required to host hardware and software to configure the AN/USC-62 terminal, as well as display and process IBS data. The universal computers are being replaced due to obsolescence.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP (Upgrade)			- / 3.839	- / -	- / -	- / -	- / -	- / -
P-3a	2 / AN/USQ-151, JTT-M SYSTEMS - Ship (New Model)			- / 68.524	- / 2.182	- / -	- / -	- / -	- / -
P-3a	3 / AN/USQ-151, JTT-M SYSTEM - Shore (New Model)			- / 6.540	- / 1.265	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 78.903	- / 3.447	- / -	- / -	- / -	- / -

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP (Upgrade)			- / -	- / -	- / -	- / -	- / -	- / 3.839
P-3a	2 / AN/USQ-151, JTT-M SYSTEMS - Ship (New Model)			- / -	- / -	- / -	- / -	- / -	- / 70.706
P-3a	3 / AN/USQ-151, JTT-M SYSTEM - Shore (New Model)			- / -	- / -	- / -	- / -	- / -	- / 7.805
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	- / -	- / 82.350

*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.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System				Modification Number / Title: 1 / AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	3.839	-	-	-	-	-	-	-	-	-	-	3.839
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	3.839	-	-	-	-	-	-	-	-	-	-	3.839
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	3.839	-	-	-	-	-	-	-	-	-	-	3.839
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/USQ-151, JTT-M system is a Ultra High Frequency (UHF) Satellite Communications (SATCOM) radio system that will give the shipboard and ashore users the capability to participate in national and joint theater level tactical intelligence data exchange through the Integrated Broadcast Service (IBS) network using IBS-Simplex (IBS-S) and IBS-Interactive (IBS-I) data. AN/USC-62 upgrade kits update the terminals to support National Security Agency (NSA) mandated crypto modernization, Common Message Format (CMF) and Common Integrated Broadcast (CIB) waveform. The universal computers are being replaced due to obsolescence.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System					Modification Number / Title: 1 / AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP			
Models of Systems Affected: Ship				Modification Type: Upgrade				Related RDT&E PEs: 0303109N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP</i>													
B Kits													
Recurring													
1.1.1) Universal Computers - NonOrganic	67 / 0.624	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	67 / 0.624	
<i>Subtotal: Recurring</i>	- / 0.624	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.624	
<i>Subtotal: AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP</i>	67 / 0.624	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	67 / 0.624	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.624	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.624	
Installation													
<i>Modification Item 1 of 1: AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP</i>													
<i>Subtotal: Installation</i>	- / 3.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.215	
Total													
Total Cost (Procurement + Support + Installation)	3.839	-	-	-	-	-	-	-	-	-	-	3.839	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System	Modification Number / Title: 1 / AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP

Modification Item 1 of 1: AN/USC-62 UPGRADE KITS & UNIVERSAL COMPUTER - SHIP

Manufacturer Information

Manufacturer Name: NCS Technologies Inc.	Manufacturer Location: Gainesville, VA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: IMO:: Installation Name: Universal Computers

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	67 / 3.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	67 / 3.215
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	67 / 3.215	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	67 / 3.215

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67
Out	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System				Modification Number / Title: 2 / AN/USQ-151, JTT-M SYSTEMS - Ship				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	68.524	2.182	-	-	-	-	-	-	-	-	-	70.706
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	68.524	2.182	-	-	-	-	-	-	-	-	-	70.706
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	68.524	2.182	-	-	-	-	-	-	-	-	-	70.706
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/USQ-151, JTT-M system is a Ultra High Frequency (UHF) Satellite Communications (SATCOM) radio system that will give the shipboard and ashore users the capability to participate in national and joint theater level tactical intelligence data exchange through the Integrated Broadcast Service (IBS) network using IBS-Simplex (IBS-S) and IBS-Interactive (IBS-I) data. New AN/USQ-62, JTT-Senior systems will replace legacy terminals (Tactical Receive Equipment (TRE) and Commanders Tactical Terminal (CTT)) which will become obsolete with the National Security Agency (NSA) crypto modernization mandate as well as be able to provide IBS capability to AEGIS platforms without IBS terminals.

[AN/USQ-151, JTT-M Systems] Maritime Integrated Broadcast System (MIBS) project has been tasked to support accelerated fleet deployment of Joint Tactical Terminal - Maritime (JTT-M) systems and legacy system upgrades to meet pressing operational requirements and to meet critical NSA mandated crypto upgrades, as detailed in NSA SIGINT Director classified memo. The JTT-M systems and upgrades are mandatory to allow/continue broadcast access for DX national priority BMD mission platforms and surface force self-protection capabilities as prioritized by NAVYCYBERFOR prioritization message, DTG: R291339Z MAR 13. Ships failing to get upgrade and planned system installs will lose mission capability after classified deadlines pass. The MIBS Program is working with the type commanders to identify WOO's to accelerate installs.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System					Modification Number / Title: 2 / AN/USQ-151, JTT-M SYSTEMS - Ship			
Models of Systems Affected: Ship				Modification Type: New Model				Related RDT&E PEs: 0303109N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: AN/USQ-151, JTT-M SYSTEMS - Ship</i>													
B Kits													
Recurring													
1.1.1) AN/USQ-151, JTT-M Systems - NonOrganic	74 / 35.953	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	74 / 35.953	
1.1.2) Ancillary Equipment - Organic	21 / 1.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 1.040	
<i>Subtotal: Recurring</i>	- / 36.993	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 36.993	
<i>Subtotal: AN/USQ-151, JTT-M SYSTEMS - Ship</i>	95 / 36.993	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	95 / 36.993	
<i>Subtotal: Procurement, All Modification Items</i>	- / 36.993	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 36.993	
Support (All Modification Items)													
2.1) Production Support	- / 17.940	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.940	
2.2) DSA	- / 14.318	- / 0.142	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.460	
<i>Subtotal: Support</i>	- / 12.258	- / 0.142	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 12.400	
Installation													
<i>Modification Item 1 of 1: AN/USQ-151, JTT-M SYSTEMS - Ship</i>	- / 19.273	- / 2.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.313	
<i>Subtotal: Installation</i>	- / 19.273	- / 2.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 21.313	
Total													
Total Cost (Procurement + Support + Installation)	68.524	2.182	-	-	-	-	-	-	-	-	-	70.706	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System	Modification Number / Title: 2 / AN/USQ-151, JTT-M SYSTEMS - Ship

Modification Item 1 of 1: AN/USQ-151, JTT-M SYSTEMS - Ship

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: St. Petersburg, FL
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Ship:: Installation Name: AN/USQ-151, JTT-M Systems

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	68 / 19.273	6 / 2.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	74 / 21.313
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	68 / 19.273	6 / 2.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	74 / 21.313

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	66	2	3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74
Out	66	2	3	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	

Method of Implementation (Organic): Ancillary Equipment - Not Installed **Installation Quantity:** 21

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System				Modification Number / Title: 3 / AN/USQ-151, JTT-M SYSTEM - Shore				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	6.540	1.265	-	-	-	-	-	-	-	-	-	7.805
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	6.540	1.265	-	-	-	-	-	-	-	-	-	7.805
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	6.540	1.265	-	-	-	-	-	-	-	-	-	7.805
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/USQ-151, JTT-M system is a Ultra High Frequency (UHF) Satellite Communications (SATCOM) radio system that will give the shipboard and ashore users the capability to participate in national and joint theater level tactical intelligence data exchange through the Integrated Broadcast Service (IBS) network using IBS-Simplex (IBS-S) and IBS-Interactive (IBS-I) data. New AN/USQ-62, JTT-Senior systems will replace legacy terminals (Tactical Receive Equipment (TRE) and Commanders Tactical Terminal (CTT)) which will become obsolete with the National Security Agency (NSA) crypto modernization mandate as well as be able to provide IBS capability to AEGIS platforms without IBS terminals.

First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

[AN/USQ-151, JTT-M SYSTEM] Maritime Integrated Broadcast System (MIBS) project has been tasked to support accelerated fleet deployment of Joint Tactical Terminal - Maritime (JTT-M) systems and legacy system upgrades to meet pressing operational requirements and to meet critical NSA mandated crypto upgrades, as detailed in NSA SIGINT Director classified memo. The JTT-M systems and upgrades are mandatory to allow/continue broadcast access for DX national priority BMD mission platforms and surface force self-protection capabilities as prioritized by NAVYCYBERFOR prioritization message, DTG: R291339Z MAR 13. Ships failing to get upgrade and planned system installs will lose mission capability after classified deadlines pass. The MIBS Program is working with the type commanders to identify WOO's to accelerate installs.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System	Modification Number / Title: 3 / AN/USQ-151, JTT-M SYSTEM - Shore

Models of Systems Affected: Shore	Modification Type: New Model	Related RDT&E PEs: 0303109N
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Procurement												
<i>Modification Item 1 of 1:</i> AN/USQ-151, JTT-M SYSTEM - Shore												
B Kits												
Recurring												
1.1.1) AN/USQ-151, JTT-M SYSTEM - NonOrganic	13 / 5.138	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.138
<i>Subtotal: Recurring</i>	- / 5.138	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.138
<i>Subtotal: AN/USQ-151, JTT-M SYSTEM - Shore</i>	13 / 5.138	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 5.138
<i>Subtotal: Procurement, All Modification Items</i>	- / 5.138	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 5.138
Installation												
<i>Modification Item 1 of 1:</i> AN/USQ-151, JTT-M SYSTEM - Shore	- / 1.402	- / 1.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.667
<i>Subtotal: Installation</i>	- / 1.402	- / 1.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.667
Total												
Total Cost (Procurement + Support + Installation)	6.540	1.265	-	-	-	-	-	-	-	-	-	7.805

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2900 / Maritime Integrated Broadcast System	Modification Number / Title: 3 / AN/USQ-151, JTT-M SYSTEM - Shore

Modification Item 1 of 1: AN/USQ-151, JTT-M SYSTEM - Shore

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: St. Petersburg, FL
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 13

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: [none specified]:: Installation Name: AN/USQ-151, JTT-M SYSTEM

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 1.402	5 / 1.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	13 / 2.667
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 1.402	5 / 1.265	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 2.667

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	8	-	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Out	8	-	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604231N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	56.453	16.766	13.600	27.927	-	27.927	30.609	30.727	31.386	32.038	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	56.453	16.766	13.600	27.927	-	27.927	30.609	30.727	31.386	32.038	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	56.453	16.766	13.600	27.927	-	27.927	30.609	30.727	31.386	32.038	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.320	0.495	0.277	-	0.277	0.606	0.652	0.764	0.808	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Tactical/Mobile (TacMobile) C4I Systems by \$1.2M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Commencing in FY17, OPN line item 2246 (PE 0204271N) is consolidated with OPN line item 2906 to align TacMobile C4I procurements with TacMobile MPRF P-8A Aircraft Support Systems procurements. Additionally in FY17, DJC2 funding from line item 2804 was realigned to line item 2906 as part of the Budget Line Item Consolidation effort.

Tactical/Mobile (TacMobile) C4I Systems : Tactical/Mobile (TacMobile) C4I Systems provide the Maritime, Patrol and Reconnaissance Force (MPRF) commanders with the capability to plan, direct, control and evaluate the tactical operations of MPRF and other assigned units within their respective area of responsibility. These operations include littoral, open ocean, and over land all sensor (e.g., Electro Optical (EO), Infrared (IR), Inverse Synthetic-Aperture Radar (ISAR)) surveillance, anti-surface warfare, over-the-horizon targeting, counter-drug operations, power projection, antisubmarine warfare, mining, search and rescue, homeland defense, and special operations.

The program includes fixed-site Tactical Operations Centers (TOCs) and Mobile Tactical Operations Centers (MTOCs) or equivalent. Each TacMobile unit is a system-of-systems. TOCs provide sensor and tactical data communications systems; mission planning/mission support, sensor analysis capabilities; avionics and weapons system interfaces, media devices and data handling capabilities, at fixed-site locations. MTOC is a scalable, mobile version of the TOC for contingency operations and for support of operations from remote forward operating airfields.

9 TOCs: 6 operational systems (located at Jacksonville Florida, Sigonella Italy, Kaneohe Bay Hawaii, Whidbey Island Washington, Kadena Japan, and Bahrain), 1 training system (located at the Center for Naval Air Technical Training (CNATT) Jacksonville Florida), 2 laboratory systems (a communications integration lab located at Space & Naval Warfare Systems Command Systems Center (SSC) Atlantic, and an aircraft integration lab located at SSC Atlantic detachment Patuxent River Maryland).

15 MTOCs: 9 operational systems (homeported at Jacksonville Florida (5 sites), Whidbey Island Washington (2 sites), and Coronado (North Island) California (2 sites)), 1 laboratory system (an aircraft integration lab located at Navy Detachment Dallas), 1 C4I engineering and maintenance support system (located at the In Service Engineering Activity (ISEA), SSC Atlantic), 1 C4I mobile systems schoolhouse (located at the Center for Naval Air Technical Training (CNATT) Jacksonville Florida) and 3 legacy systems awaiting End-to-End refresh/recapitalization to meet current operational configuration/requirements (SSC Lant).

The TacMobile program uses an evolutionary development strategy consisting of incremental upgrades to meet new and emergent Fleet requirements, while retaining current capabilities. Increments are planned and resourced to support the MPRF Family of Systems aircraft: P-8A Poseidon aircraft and its upgrades; Advanced Airborne Sensor (AAS); and MQ-4C Triton.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604231N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>T4050 will fund TacMobile Command, Control, Computer, Communications and Intelligence (C4I), network, and reach back communications systems modernization. Additionally, the line item funds TacMobile interfaces with P-8A and P-3C aircraft systems and sensors, and tactical communications modernization. Together these separate capabilities are combined to provide the TOCs and MTOCs with an Integrated Warfighting Capability to support Maritime Patrol P-8A operation requirements and pace aircraft modernization requirements.</p> <p>TacMobile C4I/P-8a modernization are synchronized to provide Technical Refreshes and Incremental Capability upgrades which provide the underlying C4I Infrastructure components and aircraft support capabilities components that ride on the C4I infrastructure. These components are developed in synchronization to work together, and are therefore fielded together. New or modernized aircraft interfaces are built specifically to integrate onto the new or modernized C4I infrastructure. They work together as an overarching system of systems.</p> <p>JH500. Deployable Joint Command and Control (DJC2) provides a self-contained, standardized, rapidly deployable, modular, scalable, and reconfigurable joint command and control (C2) capability to designated Geographic Combatant Commands (GCCs). DJC2 is the materiel solution to Defense Planning Guidance that called for the development of standing Joint Task Forces (JTF) with a deployable C2 capability. DJC2 will ensure that Joint Force Commanders (JFC) are equipped as well as trained and organized to carry out their C2 responsibilities. DJC2 provides GCCs and JFCs a mission critical, integrated family of systems with which to plan, control, coordinate, execute and assess operations. It is designed to deploy rapidly, set up within hours and quickly provide necessary C2 mission and collaboration functionality across the full spectrum of JTF operations. The DJC2 has also been deployed in support of Humanitarian Assistance and Disaster Relief (HA/DR) efforts. The capability is intended for all levels of conflict and will be reconfigurable to meet specific GCC and JTF mission requirements. This capability is interoperable with higher and adjacent echelons of command (to include coalition allies) as well as with supporting elements to include joint forces.</p> <p>DJC2 sites are as follows: 6 DJC2 core systems garrisoned at USSOUTHCOM Tampa, Florida (1), USEUCOM Stuttgart, Germany (1), AFRICOM (SETAF) Vicenza, Italy (1), USPACOM Camp Smith, Hawaii (1), Marine Expeditionary Force (III MEF) Camp Hansen, Japan (1), and NAVEUR-NAVAF, JFC Naples, Italy (1).</p> <p>Note that DJC2 is not a follow-on or replacement system for the Global Command and Control System-Joint (GCCS-J); rather, DJC2 employs a suite of applications, ensuring interoperability with the worldwide-installed base of GCCS-J.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment

P-1 Line Item Number / Title:
2906 / Tactical/Mobile C4I Systems

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604231N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Tactical/Mobile (TacMobile) C4I Systems	P-5a		- / 42.654	- / 11.029	- / 0.717	- / 1.414	- / -	- / 1.414
P-3a	1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh (Tech Refresh)			- / 9.998	- / -	- / 1.979	- / 2.919	- / -	- / 2.919
P-3a	2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 (Upgrade)			- / 3.801	- / 5.737	- / 10.904	- / 23.594	- / -	- / 23.594
P-40	Total Gross/Weapon System Cost			- / 56.453	- / 16.766	- / 13.600	- / 27.927	- / -	- / 27.927

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Tactical/Mobile (TacMobile) C4I Systems	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh (Tech Refresh)			- / 10.351	- / 0.700	- / -	- / -	- / -	- / 25.947
P-3a	2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1 (Upgrade)			- / 17.802	- / 11.944	- / 6.595	- / 0.750	- / -	- / 81.127
P-40	Total Gross/Weapon System Cost			- / 30.609	- / 30.727	- / 31.386	- / 32.038	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:
FY17 funding procures tech refresh of TOC and MTOC C4I and P-8A aircraft interfaces.

FY17 funding procures DJC2 system enhancements for six sites.

FY17 installs include three TOC and eight MTOC components procured by OPN line item 2246 in FY16.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2906 / Tactical/Mobile C4I Systems **Aggregated Items Title:** Tactical/Mobile (TacMobile) C4I Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) T4050 Tactical/Mobile																				
1.1) TOC/MTOC 2.0.1 ^(t)	A		287.679	28	8.055	301.500	2	0.603	-	-	-	-	-	-	-	-	-	-	-	-
1.2) TOC/MTOC Inc 2.1 ^(t)	A		993.417	24	23.842	724.200	10	7.242	-	-	-	-	-	-	-	-	-	-	-	-
1.5) Shore Pre-Installation and Design	A		-	-	0.309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) T4050 Tactical/Mobile			-	-	32.206	-	-	7.845	-	-	-	-	-	-	-	-	-	-	-	-
2) TACAMO																				
2.1) TACAMO	B		1,542.667	3	4.628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) TACAMO			-	-	4.628	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3) T4776 Installation																				
3.1) 2.0.1 Install	A		-	-	2.242	-	-	1.435	-	-	0.358	-	-	-	-	-	-	-	-	-
3.2) 2.1 Install	A		-	-	3.578	-	-	1.749	-	-	0.359	-	-	-	-	-	-	-	-	-
Subtotal: 3) T4776 Installation			-	-	5.820	-	-	3.184	-	-	0.717	-	-	-	-	-	-	-	-	-
4) JH500 DJC2 Increment I System Enhancements																				
4.1) DJC2 Increment I System Enhancements ^{(1)(t)}	A		-	-	-	-	-	-	-	-	-	235.631	6	1.414	-	-	-	235.631	6	1.414
Subtotal: 4) JH500 DJC2 Increment I System Enhancements			-	-	0.000	-	-	-	-	-	-	-	-	1.414	-	-	-	-	-	1.414
Total			-	-	42.654	-	-	11.029	-	-	0.717	-	-	1.414	-	-	-	-	-	1.414

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

^(t) indicates the presence of a P-5a

Footnotes:

⁽¹⁾ Quantities listed represent DJC2 core system sites. Unit costs vary due to the number or level of core system enhancements performed at each site from year to year.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10			P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems					Aggregated Items: Tactical/Mobile (TacMobile) C4I Systems				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) T4050 Tactical/Mobile												
1.1) TOC/MTOC 2.0.1		2015	SSC LANT / Charleston, SC	C / FFP	SSC LANT	Dec 2014	Jul 2015	2	301.500	Y		Aug 2014
1.2) TOC/MTOC Inc 2.1		2015	SSC LANT / Charleston, SC	C / FFP	SSC LANT	Dec 2014	Feb 2015	10	724.200	Y		Sep 2014
4) JH500 DJC2 Increment I System Enhancements												
4.1) DJC2 Increment I System Enhancements ⁽¹⁾		2017	SPAWAR / San Diego	C / TBD	San Diego	Apr 2017	Jun 2017	6	235.631	Y		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems				Modification Number / Title: 1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	9.998	-	1.979	2.919	-	2.919	10.351	0.700	-	-	-	25.947
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	9.998	-	1.979	2.919	-	2.919	10.351	0.700	-	-	-	25.947
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	9.998	-	1.979	2.919	-	2.919	10.351	0.700	-	-	-	25.947
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides overarching technical modernization and technical refresh to fielded TacMobile systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems					Modification Number / Title: 1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh			
Models of Systems Affected: Various				Modification Type: Tech Refresh				Related RDT&E PEs: 0604231N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh</i>													
B Kits													
Recurring													
1.1.1) TOC - NonOrganic	2 / 1.284	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1.284	
1.1.2) MTOC - NonOrganic ⁽²⁾	7 / 5.504	- / -	1 / 1.979	2 / 2.638	- / -	2 / 2.638	7 / 10.152	- / -	- / -	- / -	- / -	17 / 20.273	
1.1.3) FY2013 OCO Funding (JMAST Tech Refresh) - NonOrganic	- / 2.025	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.025	
<i>Subtotal: Recurring</i>	<i>- / 8.813</i>	<i>- / -</i>	<i>- / 1.979</i>	<i>- / 2.638</i>	<i>- / -</i>	<i>- / 2.638</i>	<i>- / 10.152</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 23.582</i>	
<i>Subtotal: Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh</i>	<i>9 / 8.813</i>	<i>- / -</i>	<i>1 / 1.979</i>	<i>2 / 2.638</i>	<i>- / -</i>	<i>2 / 2.638</i>	<i>7 / 10.152</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>19 / 23.582</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 8.813</i>	<i>- / -</i>	<i>- / 1.979</i>	<i>- / 2.638</i>	<i>- / -</i>	<i>- / 2.638</i>	<i>- / 10.152</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 23.582</i>	
Installation													
<i>Modification Item 1 of 1: Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh</i>													
<i>Subtotal: Installation</i>	<i>- / 1.185</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.281</i>	<i>- / -</i>	<i>- / 0.281</i>	<i>- / 0.199</i>	<i>- / 0.700</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 2.365</i>	
Total	9.998	-	1.979	2.919	-	2.919	10.351	0.700	-	-	-	25.947	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems	Modification Number / Title: 1 / Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh

Modification Item 1 of 1: Tactical/Mobile (TacMobile) C4I Systems- Tech Refresh

Manufacturer Information

Manufacturer Name: SSC LANT	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 9

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

Installation Information

Method of Implementation: [none specified]:: Installation Name: TacMobile C4I Systems Tech Refresh

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9 / 1.185	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 1.185
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	3 / 0.281	- / -	3 / 0.281	- / -	- / -	- / -	- / -	- / -	3 / 0.281
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.199	- / -	- / -	- / -	- / -	2 / 0.199
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.700	- / -	- / -	- / -	7 / 0.700
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	9 / 1.185	- / -	- / -	3 / 0.281	- / -	3 / 0.281	2 / 0.199	7 / 0.700	- / -	- / -	- / -	21 / 2.365

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	9	-	-	-	-	-	-	-	-	-	3	-	-	-	2	-	-	-	4	3	-	-	-	-	-	-	-	-	-	-	-	-
Out	9	-	-	-	-	-	-	-	-	-	3	-	-	-	2	-	-	-	2	5	-	-	-	-	-	-	-	-	-	-	-	-

Footnotes:
 (2) 1. Quantities represent separate Command & Control & Intelligence (C2I), Communications, and Mobility/Facility component system upgrades of TacMobile systems. 2. Unit cost represents an average, because TacMobile is a system of systems. Configuration of upgrade and refresh systems to be procured vary by Increment. Unit cost variances exist in Tech Refresh procurements in order to bring all TacMobile sites to a common configuration baseline. 3. Install costs vary across fiscal years due to different equipment mixes, site specific requirements, and varied, world-wide locations. 4. FY17 installs include two MTOC components procured by OPN line item 2246 in FY16.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems				Modification Number / Title: 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	3.801	5.737	10.904	23.594	-	23.594	17.802	11.944	6.595	0.750	-	81.127
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	3.801	5.737	10.904	23.594	-	23.594	17.802	11.944	6.595	0.750	-	81.127
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	3.801	5.737	10.904	23.594	-	23.594	17.802	11.944	6.595	0.750	-	81.127
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides technical modernization and technical refresh to fielded TacMobile Command and Control, Networking, and Communications systems necessary to support P-8A Poseidon Increment 2 and MQ-4C Triton Unmanned Aerial System (UAS) at their Initial Operating Capability (IOC).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems					Modification Number / Title: 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1			
Models of Systems Affected: Inc 2.1				Modification Type: Upgrade				Related RDT&E PEs: 0604231N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1</i>													
B Kits													
Recurring													
1.1.1) TOC - NonOrganic ⁽³⁾	2 / 1.703	2 / 1.404	6 / 4.242	9 / 6.279	- / -	9 / 6.279	9 / 6.381	6 / 4.411	- / -	- / -	- / -	34 / 24.420	
1.1.2) MTOC - NonOrganic ⁽⁴⁾	2 / 1.702	6 / 4.212	8 / 5.656	15 / 13.792	- / -	15 / 13.792	9 / 7.844	5 / 5.165	5 / 5.115	- / -	- / -	50 / 43.486	
1.1.3) Shore Pre-Installation Design - Organic	- / -	- / 0.121	- / 0.200	- / 0.400	- / -	- / 0.400	- / 0.400	- / -	- / -	- / -	- / -	- / 1.121	
<i>Subtotal: Recurring</i>	- / 3.405	- / 5.737	- / 10.098	- / 20.471	- / -	- / 20.471	- / 14.625	- / 9.576	- / 5.115	- / -	- / -	- / 69.027	
<i>Subtotal: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1</i>	4 / 3.405	8 / 5.737	14 / 10.098	24 / 20.471	- / -	24 / 20.471	18 / 14.625	11 / 9.576	5 / 5.115	- / -	- / -	84 / 69.027	
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.405	- / 5.737	- / 10.098	- / 20.471	- / -	- / 20.471	- / 14.625	- / 9.576	- / 5.115	- / -	- / -	- / 69.027	
Installation													
<i>Modification Item 1 of 1: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1</i>													
	- / 0.396	- / -	- / 0.806	- / 3.123	- / -	- / 3.123	- / 3.177	- / 2.368	- / 1.480	- / 0.750	- / -	- / 12.100	
<i>Subtotal: Installation</i>	- / 0.396	- / -	- / 0.806	- / 3.123	- / -	- / 3.123	- / 3.177	- / 2.368	- / 1.480	- / 0.750	- / -	- / 12.100	
Total													
Total Cost (Procurement + Support + Installation)	3.801	5.737	10.904	23.594	-	23.594	17.802	11.944	6.595	0.750	-	81.127	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems	Modification Number / Title: 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1

Modification Item 1 of 1: Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1

Manufacturer Information							
Manufacturer Name: SSC LANT				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016	Jan 2017				
Delivery Dates	Jul 2015	Jul 2016	Jul 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: TacMobile C4I Systems Technical Refresh 2.1.1

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 0.396	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	4 / 0.396
FY 2015	- / -	- / -	8 / 0.806	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.806
FY 2016	- / -	- / -	- / -	23 / 3.123	- / -	23 / 3.123	- / -	- / -	- / -	- / -	- / -	23 / 3.123
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	24 / 3.177	- / -	- / -	- / -	- / -	24 / 3.177
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 2.368	- / -	- / -	- / -	18 / 2.368
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.480	- / -	- / -	11 / 1.480
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.750	- / -	5 / 0.750
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 0.396	- / -	8 / 0.806	23 / 3.123	- / -	23 / 3.123	24 / 3.177	18 / 2.368	11 / 1.480	5 / 0.750	- / -	93 / 12.100

Installation Schedule																																	
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	4	-	-	-	-	-	4	4	-	-	8	8	7	-	8	13	3	-	8	8	2	-	11	-	-	-	5	-	-	-	-	-	93
Out	4	-	-	-	-	-	4	4	-	-	8	8	7	-	8	13	3	-	8	8	2	-	11	-	-	-	5	-	-	-	-	-	93

Footnotes:

⁽³⁾ 1. Quantities represent separate Command & Control & Intelligence (C2I), Communications, and Mobility/Facility component system upgrades of TacMobile systems. 2. Unit cost represents an average, because TacMobile is a system of systems. Configuration of upgrade systems to be procured vary by site unique differences. 3. Install costs vary due to different equipment mixes, site specific requirements, and varied, world-wide locations. 4. FY15-19 procurements require a 6 month lead time for integration, pre-installation and checkout, packaging, and shipping. 5. Three units procured in FY16 under 2246 are being installed in FY17 under 2906.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2906 / Tactical/Mobile C4I Systems	Modification Number / Title: 2 / Tactical Mobile (TacMobile) C4I Systems - Tech Refresh 2.1.1

⁽⁴⁾ 1. FY17 installs include six MTOC components procured by OPN line item 2246 in FY16.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305208N
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Line Item MDAP/MAIS Code: 000	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	126.124	23.649	31.809	12.676	12.000	24.676	22.639	12.884	9.015	13.173	280.715	544.684
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	126.124	23.649	31.809	12.676	12.000	24.676	22.639	12.884	9.015	13.173	280.715	544.684
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	126.124	23.649	31.809	12.676	12.000	24.676	22.639	12.884	9.015	13.173	280.715	544.684

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.287	2.319	0.403	-	0.403	1.481	0.449	0.277	0.175	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Distributed Common Ground System - Navy (DCGS-N) by \$0.9M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Distributed Common Ground System - Navy (DCGS-N) is the Navy's portion of the Under Secretary of Defense, Intelligence (USD (I)) DCGS-N Family of Systems (FoS). The Department of Defense (DoD) has defined a DCGS architecture that will be compatible and interoperable across all of the Services' Intelligence, Surveillance and Reconnaissance (ISR) systems and operations. DCGS accesses and ingests data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers. This collected data is shared across a Joint enterprise using the DCGS Integration Backbone (DIB) and in time, the Defense Intelligence Information Enterprise (DI2E) to enhance access and sharing of ISR information across Joint forces through the use of common enterprise standards and services. DCGS FoS supports Joint Task Force (JTF)-level and below combat operations with critical intelligence for battle management and information warfare across the full spectrum of operations, including peace, conflict, war, and Overseas Contingency Operations (OCO). DCGS is a cooperative effort between the services, agencies, and DoD to provide systems capable of receiving, processing, exploiting, and disseminating data from airborne and national reconnaissance platforms. DCGS-N core components include the Analyst Work Station from the Global Command and Control System (GCCS) - Integrated Imagery and Intelligence (I3), Generic Area Limitation Environment (GALE) Signal Intelligence (SIGINT), Common Geo-positioning Services (CGS), Image Product Library (IPL), Modernized Integrated Database (MIDB), Joint Concentrator Architecture (JCA) and Track Management Services.

The DCGS-N system represents the integration of 1) The processing and exploitation of tactical and Imagery Intelligence (IMINT) and Signals Intelligence (SIGINT); 2) Precision target geopositioning, mensuration, and imagery dissemination capabilities; 3) Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); and 4) Sharing of Intelligence, Surveillance, Reconnaissance and Targeting and Command and Control information via DIB, DI2E, and Net-Centric Enterprise Services (NCES) standards with a wide range of customers (e.g., Global Command and Control System - Maritime (GCCS-M)), Joint Mission Planning System (JMPS), and many others.

The DCGS-N Enterprise Node (DEN), which incorporates current DIB standards and DI2E policy, facilitates interoperability and data sharing among the DCGS FoS. DCGS-N ensures compliance with the DoD DCGS network architecture.

The Navy is establishing an ISR Enterprise way ahead that will emphasize a reach back strategy to provide intelligence products to support deployed ship and shore operations. The Navy will also migrate to a Service Oriented Architecture (SOA) that requires the development, integration, and testing of a Maritime ISR Enterprise capability, development and migration of ISR SOA applications, and development and integration to leverage a Common Computing Environment (CCE). Additionally, DCGS-N will become the focal point for migration of Maritime Domain Awareness (MDA) fusion and analysis (MFAS) tool applications for the Navy.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305208N
Line Item MDAP/MAIS Code: 000	Item MDAP/MAIS Code(s): N/A	

DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities and integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to improve the use and analysis of sensor and platform data. Distributed Common Ground System- Navy (DCGS-N) Increment 2 will be based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness. DCGS-N Increment 2 consists of multiple releases. The first release provides an enhanced Navy Intelligence, Surveillance and Reconnaissance (ISR) enterprise that converges and builds on the DCGS-N Increment 1 and Maritime Domain Awareness Enterprise Nodes; leverages the Defense Intelligence Information Enterprise (DI2E); is compliant with the Common Computing Environment (CCE); federates ISR and TCPED workflow and production improving throughput through automation; exploits new and evolving unmanned systems sensor data; provides Multi-Intelligence (Multi-INT) cross-queuing and modular tools. The second release enhances afloat ISR capabilities by providing a set of software centric tools providing Multi-INT fusion and analysis, behavior prediction and intelligent knowledge management designed to operate in disconnected or denied communications environment. Follow-on releases will be developed based on Fleet requirements.

Intelligence Carry-On Program (ICOP) is a suite of multi-source intelligence and analytical capabilities which includes an integrated Three-Dimensional (3-D) operational picture displaying intelligence and other data sources to provide a richer and more complete picture of the battle space on Unit Level platforms. The system supports a full motion video capability that receives, processes, exploits, and disseminates organic and non-organic data as well as the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates mature Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) applications with shared storage and communication paths to reach back to the DCGS-N Enterprise Node (DEN), and it provides data sharing to the Maritime Operations Centers (MOC) and national ISR systems, making tactical users a part of the larger ISR enterprise.

ICOP is subset to DCGS-N capabilities for Unit Level platforms. DCGS-N only fields on Force Level platforms. There are currently Unit Level platforms identified to receive permanent ICOP Partial or Full Foundation Kit installations. ICOP Foundation Kits include all cabling and mounting plate foundations for antennas and ICOP box. The Unit Level platforms will pull from a ICOP Box or ICOP Box and CM3s System rotatable pool based on deployment. ICOP fielding strategy requires both partial foundation kit and ICOP box without CM3s or ICOP Box, (2) CM3s and full foundation kits based on fleet prioritization. Unit level platforms include cruisers (CG), destroyers (DDG), and amphibious transport docks (LPD-17) platforms.

DCGS-N Increment 1 Product Improvement includes DCGS-N Fleet Introductory Training and training equipment, DCGS-N hardware and software technical refresh, ancillary equipment and upgrades to extend service life and provide the fleet imagery intelligence capability. Equipment support includes the assembly and integration associated with the product improvements or modification.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment

P-1 Line Item Number / Title:
2914 / Distributed Common Ground System-Navy (DCGS-N)

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0305208N

Line Item MDAP/MAIS Code: 000 **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / ICOP	P-5a, P-21		- / 0.700	- / 10.870	- / 17.233	- / -	- / 12.000	- / 12.000
P-3a	1 / DCGS-N INCREMENT 1 Ashore (New Model)			- / 34.731	- / -	- / -	- / -	- / -	- / -
P-3a	2 / PRODUCT IMPROVEMENT Afloat (Tech Refresh/Upgrade)			- / 61.425	- / 9.059	- / 8.712	- / 4.870	- / -	- / 4.870
P-3a	3 / PRODUCT IMPROVEMENT Ashore (Tech Refresh/Upgrades)			- / 29.268	- / 3.720	- / 5.864	- / 7.806	- / -	- / 7.806
P-3a	4 / DCGS-N INCREMENT 2 Afloat (New Model)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-3a	5 / DCGS-N INCREMENT 2 Ashore (New Model)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 126.124	- / 23.649	- / 31.809	- / 12.676	- / 12.000	- / 24.676

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / ICOP	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / DCGS-N INCREMENT 1 Ashore (New Model)			- / -	- / -	- / -	- / -	- / -	- / 34.731
P-3a	2 / PRODUCT IMPROVEMENT Afloat (Tech Refresh/Upgrade)			- / 11.496	- / 9.698	- / 8.110	- / 1.714	- / -	- / 115.084
P-3a	3 / PRODUCT IMPROVEMENT Ashore (Tech Refresh/Upgrades)			- / 11.143	- / 3.186	- / 0.725	- / -	- / -	- / 61.712
P-3a	4 / DCGS-N INCREMENT 2 Afloat (New Model)			- / -	- / -	- / 0.180	- / 5.912	- / 280.715	- / 286.807
P-3a	5 / DCGS-N INCREMENT 2 Ashore (New Model)			- / -	- / -	- / -	- / 5.547	- / -	- / 5.547
P-40	Total Gross/Weapon System Cost			- / 22.639	- / 12.884	- / 9.015	- / 13.173	- / 280.715	- / 544.684

*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:

DCGS-N Increment 1 planned procurements in FY17 include (7) DCGS-N Increment 1 technical refreshes that consist of (4) 2-rack Ashore technical refreshes, (2) 1-rack Afloat technical refreshes, and (1) End-of-Life Hardware Upgrades. These DCGS-N installations will replace the currently fielded legacy systems and leverage the Navy's Common Computing Environment (CCE) as applicable as well as provide upgrades to extend service life.

OCO:

Due to Operation Enduring Freedom In Theater (OEF T) requirements in Central Command (CENTCOM), including the requirements for all deploying maritime assets to support overall theater Strategic Communications objectives, there is a theater demand for unit level intelligence Processing, Exploitation, and Dissemination (PED) capability, specifically for full motion video (FMV). Commander Fifth Fleet (C5F) requires ICOP capabilities to respond to CENCOM and NAVY-wide OPTASK Visual Information (VI) and multi-intelligence requirements to address current and emerging threats. ICOP will replace legacy IDIS laptops and improve current capabilities to warfighters at the unit level, including direct downlink of intelligence information from a wide-range of theater airborne sensors (e.g. P-3, Predator, Reaper, Scan Eagle, F/A-18, etc.) resulting in 90% improvement in battlespace awareness for the deployed unit. Due to its enhanced capability to process and stream intelligence data from airborne platforms and shipboard video sensors, ICOP has transformed unit level ships into intelligence producers, leading to C5F requesting that ICOP be fielded on all unit level platforms deploying into theater.

Specifically, C5F requires 25 ICOP systems (system = 1 ICOP box + 2 CM3s) and associated ICOP foundation kits. The materiel solution at the time consisted of a non-standardized IDIS laptop, which could not meet operational OPTASK VI requirements to disseminate off board FMV/ISR data due to shipboard bandwidth constraints. The initial response to these requirements messages resulted in OPNAV resourcing four ICOP prototypes, a system that was designed to rapidly facilitate data dissemination efforts within current shipboard bandwidth allocations. Only four systems were funded at the time due to risk reduction activities associated with a lack of a completed formal Operational Test event. Since the original requirements messages were released, resourcing the full C5F requirement has become even more critical,

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: N/A	Other Related Program Elements: 0305208N
Line Item MDAP/MAIS Code: 000	Item MDAP/MAIS Code(s): N/A	
<p>as C5F has seen a proliferation of new sensors coming on-line in their AOR, and the expansion of data that is required to get back to fleet commanders has dramatically increased. This not only requires an increased number of ICOP workstations from four to 25, but it also mandates transitioning out the legacy antenna/receivers, which does not ingest Type 1 transmissions inherent with the new manned and unmanned sensor data. Due to the additional sensors and sensor data types, continued requirements are further being levied on every platform to meet OPTASK VI requirements, such as the Fleet Visual Information CONOPs, and the Promulgation of the Visual Information Concept of Operations. C5F requires the requisite materiel solutions (ICOP and CM3s) to meet this growing demand. Also, ICOP has been deemed operationally effective and suitable, and was recommended for fleet release by COMOPTEVFOR.</p> <p>Consequently, this OCO request is to replace the original four ICOP prototypes and legacy IDIS workstations for an additional 10 platforms (14 Total) towards meeting the original 25 system requirement to enable C5F to meet operational requirements in theater.</p> <p>ICOP System (System = 1 ICOP box + 2 CM3s) and Foundation Kits (Foundation Kit = all cabling and mounting plate foundations for antennas/receivers). Foundation Kits are permanent installations. Procurements for Systems and Foundations Kits = \$8.080M Installation and DSA = \$3.920M QTY 14 Criteria: Major equipment - purchase of specialized, theater-specific equipment</p>		

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10		P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)
		Item Number / Title [DODIC]: 1 / ICOP

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	0.700	10.870	17.233	-	12.000	12.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.700	10.870	17.233	-	12.000	12.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.700	10.870	17.233	-	12.000	12.000

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - ICOP Cost																		
Recurring Cost																		
1.1.1) ICOP Foundation Kit Procurement ⁽¹⁾ (1)	-	-	0.000	25.600	35	0.896	34.276	58	1.988	-	-	-	80.000	14	1.120	80.000	14	1.120
1.1.2) ICOP System Procurement ⁽¹⁾ (2)	-	-	0.000	128.964	28	3.611	171.133	45	7.701	-	-	-	461.929	14	6.467	461.929	14	6.467
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>4.507</i>	-	-	<i>9.689</i>	-	-	-	-	-	<i>7.587</i>	-	-	<i>7.587</i>
<i>Subtotal: Hardware - ICOP Cost</i>	-	-	<i>0.000</i>	-	-	<i>4.507</i>	-	-	<i>9.689</i>	-	-	-	-	-	<i>7.587</i>	-	-	<i>7.587</i>
Hardware - INSTALLATIONS Cost																		
Recurring Cost																		
2.1.1) ICOP Foundation Kit Installation Afloat	-	-	0.000	-	-	2.940	-	-	5.760	-	-	-	-	-	2.520	-	-	2.520
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>2.940</i>	-	-	<i>5.760</i>	-	-	-	-	-	<i>2.520</i>	-	-	<i>2.520</i>
<i>Subtotal: Hardware - INSTALLATIONS Cost</i>	-	-	<i>0.000</i>	-	-	<i>2.940</i>	-	-	<i>5.760</i>	-	-	-	-	-	<i>2.520</i>	-	-	<i>2.520</i>
Support Cost																		
3.1) ICOP Foundation Kit Production Support	-	-	0.000	-	-	0.058	-	-	0.129	-	-	-	-	-	0.073	-	-	0.073
3.2) ICOP System Production Support	-	-	0.000	-	-	0.235	-	-	0.500	-	-	-	-	-	0.420	-	-	0.420
3.3) ICOP Foundation Kit DSA	-	-	0.700	-	-	3.130	-	-	1.155	-	-	-	-	-	1.400	-	-	1.400

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Item Number / Title [DODIC]: 1 / ICOP
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support Cost</i>	-	-	0.700	-	-	3.423	-	-	1.784	-	-	-	-	-	1.893	-	-	1.893
Gross/Weapon System Cost	-	-	0.700	-	-	10.870	-	-	17.233	-	-	-	-	-	12.000	-	-	12.000

Remarks:

Intelligence Carry-On Program (ICOP) is a suite of multi-source intelligence and analytical capabilities which includes an integrated Three-Dimensional (3-D) operational picture displaying intelligence and other data sources to provide a richer and more complete picture of the battle space on Unit Level platforms. The system supports a full motion video capability that receives, processes, exploits, and disseminates organic and non-organic data as well as the ability to process and correlate Electronic Intelligence (ELINT) and external Communications Intelligence (COMINT Externals). It integrates a menu of mature Commercial Off-the-Shelf (COTS) and Government Off-the-Shelf (GOTS) applications with shared storage and communication paths to reach back to the DCGS-N Enterprise Node (DEN), and to provide data sharing to the Maritime Operations Centers (MOC) and national ISR systems, making tactical users a part of the larger Intelligence, Surveillance and Reconnaissance (ISR) enterprise.

(t) indicates the presence of a P-5a

Footnotes:

(1) ICOP Foundation Kit procurements include all cabling and mounting plate foundations for an ICOP box and antennas/receivers. Quantities consist of two configurations depending on the platform receiving the capability. The first configuration is a full foundation kit with cabling and mounting plate foundations for both the ICOP box and antennas/receivers. The second configuration is a partial foundation kit with mounting plate foundations for an ICOP box only. Foundation Kit unit price varies depending on platform and Full or Partial Foundation Kit based on fleet prioritization. FY15 and FY16 are a mixture of both Partial and Full Foundation Kits whereas FY17 OCO requires 14 Full Foundation Kits only for C5F platforms. ICOP Partial and Full Foundation Kits will be permanently installed on Unit Level platforms. The Unit Level platforms will pull from the ICOP and CM3 rotatable pool when deploying.

(2) ICOP System procurements include an ICOP Box or ICOP Box and (2) CM3 Antennas. (2) CM3 Antennas provides the platform with approximately 360 degree coverage. ICOP Systems will not be permanently installed on a Platform. After procurement, ICOP boxes and ICOP boxes with CM3s Systems will become a part of a rotatable pool for deploying Unit Level Platforms. ICOP quantities consist of two configurations depending on the platform receiving the capability. The first configuration is a full ICOP unit made up of an ICOP box, (2) CM3 antennas. The second configuration is a ICOP unit without any CM3s. ICOP system unit price varies depending on whether the platform will receive an ICOP box and CM3s (antennas/receivers) or just an ICOP box based on fleet prioritization. FY15 and FY16 procurements consisted of both full and partial ICOP capabilities whereas FY17 OCO requires 14 full ICOPs with both boxes and CM3s for C5F platforms.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Item Number / Title [DODIC]: 1 / ICOP
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) ICOP Foundation Kit Procurement		2015	SSC PAC ⁽³⁾ / San Diego, CA	WR	San Diego	May 2015	Jun 2015	35	25.600	N	Oct 2014	
1.1.1) ICOP Foundation Kit Procurement		2016	SSC PAC ⁽³⁾ / San Diego, CA	WR	San Diego	Oct 2015	Nov 2015	58	34.276	N	Oct 2014	
1.1.1) ICOP Foundation Kit Procurement	✓	2017	SSC PAC ⁽³⁾ / San Diego, CA	WR	San Diego	Oct 2016	Nov 2016	14	80.000	N	Oct 2014	
1.1.2) ICOP System Procurement ^(†)		2015	SSC PAC / San Diego, CA	WR	San Diego	May 2015	Aug 2015	28	128.964	N	Oct 2014	
1.1.2) ICOP System Procurement ^(†)		2016	SSC PAC / San Diego, CA	WR	San Diego	Oct 2015	Jan 2016	45	171.133	N	Oct 2014	
1.1.2) ICOP System Procurement ^(†)	✓	2017	SSC PAC / San Diego, CA	WR	San Diego	Oct 2016	Jan 2017	14	461.929	N	Oct 2014	

^(†) indicates the presence of a P-21

Footnotes:

⁽³⁾ Foundations consist of COTS items.

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2914 / Distributed Common Ground System-Navy (DCGS-N) **Item Number / Title [DODIC]:** 1 / ICOP

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
1.1.2) ICOP System Procurement ⁽²⁾																															
	1	2015	NAVY	28	28	-																							-		
	1	2016	NAVY	45	45	-																							-		
✓	1	2017	NAVY	14	-	14	A	-	-	-	5	5	4																-		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)				Item Number / Title [DODIC]: 1 / ICOP				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	SSC PAC - San Diego, CA	1	40	50	-	-	3	3	-	-	3	3

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 1 / DCGS-N INCREMENT 1 Ashore
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	34.731	-	-	-	-	-	-	-	-	-	-	34.731
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	34.731	-	-	-	-	-	-	-	-	-	-	34.731
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	34.731	-	-	-	-	-	-	-	-	-	-	34.731
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

DCGS-N brings together the proven imagery exploitation capabilities of Joint Services Imagery Processing System - Navy (JSIPS-N) Tactical Input Segment (TIS) and the precision mensuration capability of the Precision Targeting Workstation (PTW), merges them with the Multi-Intelligence capability developed by the Joint Fires Network (JFN) and disseminates this throughout the ashore and afloat nodes. It supports Joint Task Force (JTF) -level combat operations and supports Joint Task Force Commanders and below with critical intelligence for battle management and information warfare across the full spectrum of operations, including peace, conflict, war, and the Overseas Contingency Operations (OCO).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)						Modification Number / Title: 1 / DCGS-N INCREMENT 1 Ashore			
Models of Systems Affected: Shore				Modification Type: New Model				Related RDT&E PEs: 0305208N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 1 Ashore													
B Kits													
Recurring													
1.1.1) Procurement Block 2 - NonOrganic ⁽⁴⁾	3 / 4.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 4.250	
<i>Subtotal: Recurring</i>	- / 4.250	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.250	
Non-Recurring													
1.2.1) Procurement Block 1 - NonOrganic	10 / 20.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 20.680	
<i>Subtotal: Non-Recurring</i>	- / 20.680	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 20.680	
<i>Subtotal: DCGS-N INCREMENT 1 Ashore</i>	13 / 24.930	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 24.930	
<i>Subtotal: Procurement, All Modification Items</i>	- / 24.930	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 24.930	
Support (All Modification Items)													
2.1) Production Support	- / 0.639	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.639	
<i>Subtotal: Support</i>	- / 0.639	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.639	
Installation													
<i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 1 Ashore	- / 9.162	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.162	
<i>Subtotal: Installation</i>	- / 9.162	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 9.162	
Total													
Total Cost (Procurement + Support + Installation)	34.731	-	-	-	-	-	-	-	-	-	-	34.731	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 1 / DCGS-N INCREMENT 1 Ashore

Modification Item 1 of 1: DCGS-N INCREMENT 1 Ashore

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: SAN DIEGO, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: Method:: Installation Name: DCGS-N Increment 1 Ashore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	13 / 9.162	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	13 / 9.162
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	13 / 9.162	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 9.162

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	11	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13
Out	11	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13

Footnotes:

(4) DCGS-N Inc 1 Block 1 and Block 2 unit costs represent an average cost based on 3 Rack, 2 Rack, and 1 Rack configurations dependent on specific platform, network, infrastructure versions, and alignment with the Navy's Network Infrastructure (Common Computing Environment (CCE)). In addition, unit costs continue to be updated based on actuals costs, locality and availability of platforms, and specific integration tasking associated with external dependent systems (e.g. Global Command and Control System - Maritime (GCCS-M), Radiant Mercury (RM), and others).

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 2 / PRODUCT IMPROVEMENT Afloat
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	61.425	9.059	8.712	4.870	-	4.870	11.496	9.698	8.110	1.714	-	115.084
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	61.425	9.059	8.712	4.870	-	4.870	11.496	9.698	8.110	1.714	-	115.084
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	61.425	9.059	8.712	4.870	-	4.870	11.496	9.698	8.110	1.714	-	115.084
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Tech Refresh/Upgrade integration procures Commerical Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the DCGS-N program for the processing and exploitation of tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT); Precision target geopositioning, mensuration, and imagery dissemination capabilities; Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) and Command and Control (C2) information via DCGS Integrated Backbone (DIB) and Net-Centric Enterprise Services (NCES) standards. Specifically, this funds tech refresh/upgrades/Engineering Change Proposals (ECPs) to its subsystems to provide access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)						Modification Number / Title: 2 / PRODUCT IMPROVEMENT Afloat			
Models of Systems Affected: Ship				Modification Type: Tech Refresh/Upgrade				Related RDT&E PEs: 0305208N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: PRODUCT IMPROVEMENT Afloat</i>													
B Kits													
Recurring													
1.1.1) DCGS-N Tech Refresh/Upgrade - NonOrganic ⁽⁶⁾	7 / 16.053	5 / 4.422	7 / 3.801	3 / 2.186	- / -	3 / 2.186	9 / 5.373	5 / 4.158	4 / 3.822	1 / 0.680	- / -	41 / 40.495	
1.1.2) JSIPS-N Tech Refresh/Upgrade - NonOrganic	11 / 12.738	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 12.738	
<i>Subtotal: Recurring</i>	- / 28.791	- / 4.422	- / 3.801	- / 2.186	- / -	- / 2.186	- / 5.373	- / 4.158	- / 3.822	- / 0.680	- / -	- / 53.233	
<i>Subtotal: PRODUCT IMPROVEMENT Afloat</i>	18 / 28.791	5 / 4.422	7 / 3.801	3 / 2.186	- / -	3 / 2.186	9 / 5.373	5 / 4.158	4 / 3.822	1 / 0.680	- / -	52 / 53.233	
<i>Subtotal: Procurement, All Modification Items</i>	- / 28.791	- / 4.422	- / 3.801	- / 2.186	- / -	- / 2.186	- / 5.373	- / 4.158	- / 3.822	- / 0.680	- / -	- / 53.233	
Support (All Modification Items)													
2.1) Equipment Support	- / 4.774	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.774	
2.2) Production Support	- / 2.515	- / 0.287	- / 0.247	- / 0.142	- / -	- / 0.142	- / 0.349	- / 0.270	- / 0.248	- / 0.044	- / -	- / 4.102	
2.3) DSA	- / 2.524	- / 0.550	- / 0.364	- / 0.542	- / -	- / 0.542	- / 0.624	- / 0.520	- / 0.240	- / 0.040	- / -	- / 5.404	
<i>Subtotal: Support</i>	- / 9.813	- / 0.837	- / 0.611	- / 0.684	- / -	- / 0.684	- / 0.973	- / 0.790	- / 0.488	- / 0.084	- / -	- / 14.280	
Installation													
<i>Modification Item 1 of 1: PRODUCT IMPROVEMENT Afloat</i>	- / 22.821	- / 3.800	- / 4.300	- / 2.000	- / -	- / 2.000	- / 5.150	- / 4.750	- / 3.800	- / 0.950	- / -	- / 47.571	
<i>Subtotal: Installation</i>	- / 22.821	- / 3.800	- / 4.300	- / 2.000	- / -	- / 2.000	- / 5.150	- / 4.750	- / 3.800	- / 0.950	- / -	- / 47.571	
Total													
Total Cost (Procurement + Support + Installation)	61.425	9.059	8.712	4.870	-	4.870	11.496	9.698	8.110	1.714	-	115.084	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 2 / PRODUCT IMPROVEMENT Afloat

Modification Item 1 of 1: PRODUCT IMPROVEMENT Afloat

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: SAN DIEGO, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Jun 2015	Jun 2016	Jun 2017				

Installation Information

Method of Implementation: Method:: Installation Name: Product Improvement Afloat DCGS-N/JSIPS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	17 / 22.821	1 / 0.950	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	18 / 23.771
FY 2015	- / -	3 / 2.850	2 / 1.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 4.750
FY 2016	- / -	- / -	7 / 2.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 2.400
FY 2017	- / -	- / -	- / -	3 / 2.000	- / -	3 / 2.000	- / -	- / -	- / -	- / -	- / -	3 / 2.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	9 / 5.150	- / -	- / -	- / -	- / -	9 / 5.150
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 4.750	- / -	- / -	- / -	5 / 4.750
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 3.800	- / -	- / -	4 / 3.800
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.950	- / -	1 / 0.950
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	17 / 22.821	4 / 3.800	9 / 4.300	3 / 2.000	- / -	3 / 2.000	9 / 5.150	5 / 4.750	4 / 3.800	1 / 0.950	- / -	52 / 47.571

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	17	-	1	1	2	-	1	4	2	2	-	1	2	-	-	4	4	1	-	2	1	2	-	2	2	-	-	1	-	-	-	52
Out	17	-	1	1	2	-	1	4	2	2	-	1	2	-	-	4	4	1	-	2	1	2	-	2	2	-	-	1	-	-	-	52

Footnotes:

⁽⁵⁾ DCGS-N Inc 1 Block 1 and Block 2 unit costs represent an average cost based on 3 Rack, 2 Rack, and 1 Rack configurations dependent on specific platform (CVN, LHD, LCC, LHA), network, infrastructure versions, and alignment with the Navy's Network Infrastructure (Common Computing Environment (CCE)). In addition, unit costs continue to be updated based on actuals costs, locality and availability of platforms, and specific integration tasking associated with external dependent systems (e.g. Global Command and Control System - Maritime (GCCS-M), Radiant Mercury (RM), and others). DCGS-N Increment 1 planned procurements in FY17 include (7) DCGS-N Increment 1 technical refreshes that consist of (4) 2-rack Ashore technical refreshes, (2) 1-rack Afloat technical refreshes, and (1) End-of-Life Hardware Upgrades. These DCGS-N installations will replace the currently fielded legacy systems and leverage the Navy's Common Computing Environment (CCE) as applicable as well as provide upgrades to extend service life. First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
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work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 3 / PRODUCT IMPROVEMENT Ashore
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	29.268	3.720	5.864	7.806	-	7.806	11.143	3.186	0.725	-	-	61.712
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	29.268	3.720	5.864	7.806	-	7.806	11.143	3.186	0.725	-	-	61.712
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	29.268	3.720	5.864	7.806	-	7.806	11.143	3.186	0.725	-	-	61.712

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Tech Refresh/Upgrade integrates commercial Off-The-Shelf/Non-Developmental Item (COTS/NDI) equipment to replace obsolete and unsupportable equipment for the DCGS-N and Joint Services Imagery Processing System - Navy (JSIPS-N) programs for the processing and exploitation of tactical and Imagery Intelligence (IMINT) and Signal Intelligence (SIGINT); Precision target geolocation, mensuration, and imagery dissemination capabilities; Selected national IMINT requirements and processing capabilities from the National Geospatial-Intelligence Agency (NGA); Sharing of Intelligence, Surveillance, Reconnaissance and Targeting (ISRT) and Command and Control (C2) information via DCGS Integrated Backbone (DIB) and Net-Centric Enterprise Services (NCES) standards. Specifically, this funds tech refresh/upgrades/Engineering Change Proposals (ECPs) to its subsystems to provide access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers access and ingest data from space borne, airborne, subsurface, and surface ISR collection assets, intelligence databases and intelligence producers.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)						Modification Number / Title: 3 / PRODUCT IMPROVEMENT Ashore			
Models of Systems Affected: Shore				Modification Type: Tech Refresh/Upgrades				Related RDT&E PEs: 0305208N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> PRODUCT IMPROVEMENT Ashore													
B Kits													
Recurring													
1.1.1) DCGS-N Tech Refresh/Upgrade - NonOrganic ⁽⁶⁾	3 / 3.149	1 / 1.305	3 / 3.463	4 / 4.606	- / -	4 / 4.606	6 / 6.378	2 / 2.311	- / -	- / -	- / -	19 / 21.212	
1.1.2) JSIPS-N Tech Refresh/Upgrade - NonOrganic	12 / 20.832	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 20.832	
<i>Subtotal: Recurring</i>	- / 23.981	- / 1.305	- / 3.463	- / 4.606	- / -	- / 4.606	- / 6.378	- / 2.311	- / -	- / -	- / -	- / 42.044	
<i>Subtotal: PRODUCT IMPROVEMENT Ashore</i>	15 / 23.981	1 / 1.305	3 / 3.463	4 / 4.606	- / -	4 / 4.606	6 / 6.378	2 / 2.311	- / -	- / -	- / -	31 / 42.044	
<i>Subtotal: Procurement, All Modification Items</i>	- / 23.981	- / 1.305	- / 3.463	- / 4.606	- / -	- / 4.606	- / 6.378	- / 2.311	- / -	- / -	- / -	- / 42.044	
Support (All Modification Items)													
2.1) Production Support	- / 0.203	- / 0.085	- / 0.226	- / 0.300	- / -	- / 0.300	- / 0.415	- / 0.150	- / -	- / -	- / -	- / 1.379	
<i>Subtotal: Support</i>	- / 0.203	- / 0.085	- / 0.226	- / 0.300	- / -	- / 0.300	- / 0.415	- / 0.150	- / -	- / -	- / -	- / 1.379	
Installation													
<i>Modification Item 1 of 1:</i> PRODUCT IMPROVEMENT Ashore													
<i>Subtotal: Installation</i>	- / 5.084	- / 2.330	- / 2.175	- / 2.900	- / -	- / 2.900	- / 4.350	- / 0.725	- / 0.725	- / -	- / -	- / 18.289	
Total													
Total Cost (Procurement + Support + Installation)	29.268	3.720	5.864	7.806	-	7.806	11.143	3.186	0.725	-	-	61.712	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 3 / PRODUCT IMPROVEMENT Ashore

Modification Item 1 of 1: PRODUCT IMPROVEMENT Ashore

Manufacturer Information

Manufacturer Name: BAE	Manufacturer Location: SAN DIEGO, CA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Jun 2015	Jun 2016	Jun 2017				

Installation Information

Method of Implementation: Method:: Installation Name: Product Improvement Ashore DCGS-N/JSIPS-N

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	14 / 5.084	1 / 1.605	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	15 / 6.689
FY 2015	- / -	1 / 0.725	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.725
FY 2016	- / -	- / -	3 / 2.175	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.175
FY 2017	- / -	- / -	- / -	4 / 2.900	- / -	4 / 2.900	- / -	- / -	- / -	- / -	- / -	4 / 2.900
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	6 / 4.350	- / -	- / -	- / -	- / -	6 / 4.350
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.725	1 / 0.725	- / -	- / -	2 / 1.450
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	14 / 5.084	2 / 2.330	3 / 2.175	4 / 2.900	- / -	4 / 2.900	6 / 4.350	1 / 0.725	1 / 0.725	- / -	- / -	31 / 18.289

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	14	-	1	-	1	-	-	1	2	-	-	2	2	-	-	3	3	-	-	1	-	-	1	-	-	-	-	-	-	-	-
Out	14	-	1	-	1	-	-	1	2	-	-	2	2	-	-	3	3	-	-	1	-	-	1	-	-	-	-	-	-	-	-

Footnotes:

⁽⁶⁾ DCGS-N Inc 1 Block 1 and Block 2 unit costs represent an average cost based on 5 Rack, 3 Rack, 2 Rack, and 1 Rack configurations dependent on specific platform (CVN, LHD, LCC, LHA), network, infrastructure versions, and alignment with the Navy's Network Infrastructure (Common Computing Environment (CCE)). In addition, unit costs continue to be updated based on actuals costs, locality and availability of platforms, and specific integration tasking associated with external dependent systems (e.g. Global Command and Control System - Maritime (GCCS-M), Radiant Mercury (RM), and others). DCGS-N Increment 1 planned procurements in FY17 include (7) DCGS-N Increment 1 technical refreshes that consist of (4) 2-rack Ashore technical refreshes, (2) 1-rack Afloat technical refreshes, and (1) End-of-Life Hardware Upgrades. These DCGS-N installations will replace the currently fielded legacy systems and leverage the Navy's Common Computing Environment (CCE) as applicable as well as provide upgrades to extend service life.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 4 / DCGS-N INCREMENT 2 Afloat
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	0.180	5.912	280.715	286.807
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	0.180	5.912	280.715	286.807
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	0.180	5.912	280.715	286.807

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities; integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to improve the use and analysis of sensor and platform data; based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)						Modification Number / Title: 4 / DCGS-N INCREMENT 2 Afloat			
Models of Systems Affected: Ship				Modification Type: New Model				Related RDT&E PEs: 0305208N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 2 Afloat													
B Kits													
Recurring													
1.1.1) Procurement - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.232	- / 262.469	2 / 265.701
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.232	- / 262.469	- / 265.701
<i>Subtotal: DCGS-N INCREMENT 2 Afloat</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.232	- / 262.469	2 / 265.701
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.232	- / 262.469	- / 265.701
Support (All Modification Items)													
2.1) Production Support	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.210	- / 18.246	- / 18.456
2.2) DSA	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.180	- / 0.270	- / -	- / 0.450
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.180	- / 0.480	- / 18.246	- / 18.906
Installation													
<i>Modification Item 1 of 1:</i> DCGS-N INCREMENT 2 Afloat	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.200	- / -	- / 2.200
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.200	- / -	- / 2.200
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	-	-	0.180	5.912	280.715	286.807

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 4 / DCGS-N INCREMENT 2 Afloat

Modification Item 1 of 1: DCGS-N INCREMENT 2 Afloat

Manufacturer Information

Manufacturer Name: Not Specified.	Manufacturer Location: Not Specified..
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 0

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.200	2 / 2.200
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.200	2 / 2.200

Installation Schedule

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

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 5 / DCGS-N INCREMENT 2 Ashore
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	-	5.547	-	5.547
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	-	5.547	-	5.547
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	-	-	-	-	-	-	5.547	-	5.547
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

DCGS-N Increment 2 addresses a critical shortfall in Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capability and capacity to support operational, tactical planning, and execution across the full range of joint military operations. Existing TCPED shortfalls will be exacerbated by planned Navy, Joint, and Allied fielding of new Intelligence, Surveillance and Reconnaissance (ISR) platforms. Currently fielded systems provide localized processing capabilities that will be overwhelmed in future years without a significant change in the way the Navy processes, exploits and disseminates intelligence data. DCGS-N Increment 2 will deliver all source fusion and analytical capabilities; provide Maritime Domain Awareness (MDA) capabilities; integrate Tasking, Collection, Processing, Exploitation, and Dissemination (TCPED) capabilities to improve the use and analysis of sensor and platform data; based on an enterprise solution to share this information across commands, services, and agencies to promote shared situational awareness.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)						Modification Number / Title: 5 / DCGS-N INCREMENT 2 Ashore		
Models of Systems Affected: Shore				Modification Type: New Model				Related RDT&E PEs: 0305208N				
Financial Plan	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
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>
Procurement												
<i>Modification Item 1 of 1: DCGS-N INCREMENT 2 Ashore</i>												
B Kits												
Recurring												
1.1.1) Procurements - NonOrganic												
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.800	- / -	2 / 3.800
<i>Subtotal: Recurring</i>												
	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.800	- / -	- / 3.800
<i>Subtotal: DCGS-N INCREMENT 2 Ashore</i>												
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.800	- / -	2 / 3.800
<i>Subtotal: Procurement, All Modification Items</i>												
	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.800	- / -	- / 3.800
Support (All Modification Items)												
2.1) Production Support												
	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.247	- / -	- / 0.247
<i>Subtotal: Support</i>												
	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.247	- / -	- / 0.247
Installation												
<i>Modification Item 1 of 1: DCGS-N INCREMENT 2 Ashore</i>												
	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.500	- / -	- / 1.500
<i>Subtotal: Installation</i>												
	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.500	- / -	- / 1.500
Total												
Total Cost (Procurement + Support + Installation)												
	0.000	-	-	-	-	-	-	-	-	5.547	-	5.547

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2914 / Distributed Common Ground System-Navy (DCGS-N)	Modification Number / Title: 5 / DCGS-N INCREMENT 2 Ashore
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Modification Item 1 of 1: DCGS-N INCREMENT 2 Ashore

Manufacturer Information

Manufacturer Name: Not Specified.	Manufacturer Location: Not Specified..
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 0

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1,500	- / -	2 / 1,500
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 1,500	- / -	2 / 1,500

Installation Schedule

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

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2915 / CANES
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303138N
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Line Item MDAP/MAIS Code: M417	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	713.954	355.046	275.641	212.030	-	212.030	349.727	417.519	395.807	346.850	2,602.262	5,668.836
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	713.954	355.046	275.641	212.030	-	212.030	349.727	417.519	395.807	346.850	2,602.262	5,668.836
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	713.954	355.046	275.641	212.030	-	212.030	349.727	417.519	395.807	346.850	2,602.262	5,668.836

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	10.393	10.061	3.573	-	3.573	9.203	10.575	7.491	2.610	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Consolidated Afloat Networks & Enterprise Services (CANES) by \$11.0M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Consolidated Afloat Networks & Enterprise Services (CANES) is the Navy's only Program of Record to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services to dominate the cyber warfare domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime, Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network. These legacy afloat network designs are currently End of Life and CANES will replace these unaffordable and obsolete networks.

The fundamental goal of CANES is to bring Infrastructure as a Service and Platform as a Service, within which current and future iterations of Navy Tactical Network computing and storage capabilities will reside. CANES will provide complete infrastructure inclusive of hardware, software, processing, storage, and end user devices for Unclassified, Coalition, Secret and SCI for all basic network services (email, web, chat, collaboration) to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers (MOC), Regional Network Operations and Security Centers (RNOSC) and Aircraft. In addition, hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Integrating these applications and systems is accomplished through application integration, the engineering process used to evaluate and validate compatibility between CANES and Navy-validated applications, systems and services that will utilize the CANES infrastructure and services. Specific programs, such as Distributed Common Ground System - Navy, Global Command and Control System - Maritime, Naval Tactical Command Support System, and Undersea Warfare Decision Support System, are dependent on the CANES common computing environment to field, host, and sustain their capability because they no longer provide their own hardware. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to architectural reliance between the two programs.

CANES will develop technical updates on a rolling four year hardware baseline and a two year software baseline to ensure no cyber security vulnerabilities exist due to hardware and software obsolescence. Fielding of CANES hardware and software baselines will be in alignment with the Chief of Naval Operation's Optimized Fleet Response Plan (OFRP). Technology refresh of existing CANES systems will be inclusive of both the latest CANES hardware and software baselines and will be executed on each ship no later than every six years. CANES is based on the overarching concept of reducing the number of afloat networks and providing enhanced efficiency through a single engineering focus on integrated technical solutions. This will allow for streamlined acquisition, contracting, and test events, and significant lifecycle efficiencies through consolidation of multiple current configuration management baselines, logistics, and training efforts into a unified support structure.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2915 / CANES
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303138N
Line Item MDAP/MAIS Code: M417	Item MDAP/MAIS Code(s): N/A	
<p>Automated Digital Network System (ADNS): ADNS provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting naval and coalition enclaves worldwide. ADNS utilizes Commercial Off-the-Shelf/ Government Off-the-Shelf (COTS/GOTS) equipment and network protocols as specified by the joint technical architecture. ADNS Increment I provides initial limited, ship to shore IP connectivity, separation of enclaves, reuse of unused enclave bandwidth, and ship to tactical shore IP connectivity. ADNS Increment II provides capabilities of network to Satellite Communications, Load Balancing, Radio Frequency (RF) restoral, and Quality of Service (QoS) to include application prioritization, Traffic Management, compression and enhancements designed to maximize use of "effective" available bandwidth for surface, shore, and airborne platforms. ADNS Increment III combines all Navy Tactical Voice, secure Communications Interoperability Protocol Inter-Working Function, Video, and data requirements into a converged IP data stream. This includes Secure Communication Interoperability-Protocol Interworking Function (SCIP-IWF) for secure telephony over IP. In addition, the Increment III architecture will incorporate an IPv4/IPv6 dual stack and a Cipher-Text security architecture to align to the Global Information Grid (GIG) in order to mesh Navy tactical surface, subsurface, and airborne platforms into a single IP environment with gateway functions to joint and coalition networks. Prior to FY13 ADNS funding resides in BLI 3050. FY13-15 funding resides in BLI 2915. Starting in FY16, funding was realigned back into BLI 3050 for Major Automated Information System (MAIS) transparency compliance.</p> <p>Cost to Complete (CTC) values are exclusive to CANES.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment

P-1 Line Item Number / Title:
2915 / CANES

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303138N

Line Item MDAP/MAIS Code: M417 **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / CANES	P-5a		- / 103.234	- / 76.083	- / -	- / -	- / -	- / -
P-3a	1 / 5F010/5F777 CANES - Afloat Non-MIP (TBD)			- / 601.353	- / 278.963	- / 273.187	- / 212.030	- / -	- / 212.030
P-3a	2 / 5F010/5F776 CANES - Ashore Non-MIP (TBD)			- / 9.367	- / -	- / 2.454	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 713.954	- / 355.046	- / 275.641	- / 212.030	- / -	- / 212.030

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / CANES	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / 5F010/5F777 CANES - Afloat Non-MIP (TBD)			- / 328.178	- / 407.983	- / 375.485	- / 338.050	- / 2,551.533	- / 5,366.762
P-3a	2 / 5F010/5F776 CANES - Ashore Non-MIP (TBD)			- / 21.549	- / 9.536	- / 20.322	- / 8.800	- / 50.729	- / 122.757
P-40	Total Gross/Weapon System Cost			- / 349.727	- / 417.519	- / 395.807	- / 346.850	- / 2,602.262	- / 5,668.836

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

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

Justification:

FY 2017 - CANES funds are for the procurement of (16) Afloat production units, (14) Technical Insertion units, and (1) Afloat First Article, with integration and associated costs for pre-installation design and the installation of (10) Afloat production units and (4) Technical Insertion units.

It is important to note, procurement quantities across the FYDP are the same CANES end item product referenced in CANES Intell LI 2925. Installation quantities represent sites receiving CANES as also referenced in LI 2925. The associated dollars in this exhibit represent the non-MIP portions of the CANES enclave.

Prior to FY13 Automated Digital Network System (ADNS) funding resides in BLI 3050. FY13-15 funding resides in BLI 2915. Starting in FY16, ADNS funding was realigned back into BLI 3050 for Major Automated Information System (MAIS) transparency compliance.

Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed (ISNS Alpha/Charlie/Delta/Legacy), geographic location of the installation, and length of the availability. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same CVN had a legacy ATM LAN the CANES installation is estimated to be \$22.4M. The legacy LAN installation has the additional cost of rewiring all the computer drops, while the newer variants of ISNS allow for reuse of drops during the CANES installation.

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Item Number / Title [DODIC]: 1 / CANES
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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)	103.234	76.083	-	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	103.234	76.083	-	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	103.234	76.083	-	-	-	-

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Flyaway - European Reassurance Initiative Cost																		
Non Recurring Cost																		
1.1.1) European Reassurance Initiative. ^(f)	-	-	0.000	80.000	5	0.400	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.400</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway - European Reassurance Initiative Cost</i>	-	-	<i>0.000</i>	-	-	<i>0.400</i>	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Operation Rolling Thunder (ORT) Cost																		
Recurring Cost																		
2.1.1) ORT - Hardware ^(f) (1)	0.000	13	0.000	528.324	34	17.963	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>17.963</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Operation Rolling Thunder (ORT) Cost</i>	-	-	<i>0.000</i>	-	-	<i>17.963</i>	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Automated Digital Network System (ADNS) Cost																		
Recurring Cost																		
3.1.1) ADNS INC II - Ashore ^(f) (2)	50.000	8	0.400	50.000	4	0.200	-	-	-	-	-	-	-	-	-	-	-	-
3.1.2) ADNS INC III - Afloat ^(f) (3)	926.676	71	65.794	1,119.276	29	32.459	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Item Number / Title [DODIC]: 1 / CANES

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
3.1.3) ADNS INC III - Ashore ^{(1) (4)}	1,200.000	7	8.400	1,100.000	6	6.600	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	74.594	-	-	39.259	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Automated Digital Network System (ADNS) Cost</i>	-	-	74.594	-	-	39.259	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - Installations Cost																		
Recurring Cost																		
4.1.1) ADNS INC II - Ashore Installations	-	-	0.200	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-
4.1.2) ADNS INC III - Afloat Installations	-	-	17.597	-	-	9.721	-	-	-	-	-	-	-	-	-	-	-	-
4.1.3) ADNS INC III - Ashore Installations	-	-	1.600	-	-	2.800	-	-	-	-	-	-	-	-	-	-	-	-
4.1.4) ORT - Installations	-	-	0.000	-	-	0.994	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	19.397	-	-	13.715	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Installations Cost</i>	-	-	19.397	-	-	13.715	-	-	-	-	-	-	-	-	-	-	-	-
Support Cost																		
5.1) ADNS - Production Support	-	-	4.642	-	-	1.787	-	-	-	-	-	-	-	-	-	-	-	-
5.2) ADNS - DSA	-	-	4.601	-	-	2.859	-	-	-	-	-	-	-	-	-	-	-	-
5.3) ORT - DSA	-	-	0.000	-	-	0.100	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	9.243	-	-	4.746	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	103.234	-	-	76.083	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:

[Flyaway/Non-Recurring] The European Reassurance Initiative (ERI) is a congressional interest item to procure CENTRIXS (Combined ENTERprise Regional Information Exchange System) fly-away kits for coalition forces deployed in support of NAVEUR missions - including SAFE (Submarine Allied Forces Europe) - in Europe. These units will not be installed.

[Hardware/Recurring] Legacy Network Operation Rolling Tide (ORT) is a Navy-wide cyber remediation initiative to secure government databases and improve the overall security protocols for Navy computer networks. Specifically, ORT will fund planned legacy network upgrades to support Windows XP eradication and mitigate security vulnerabilities on the highest End of Life platforms that are not targeted to be replaced by a Consolidated Afloat Networks & Enterprise Services (CANES) system until after FY18. These upgrades will mitigate known targeted cyber vulnerabilities and include critical End of Life (EOL) firewalls and routers and improved anti-malware solutions. Legacy Network ORT will improve the networks ability to detect known and unknown vulnerabilities and attacks by upgrading sensor and monitoring technologies and accelerate post-attack containment and recovery. Starting in FY16, Legacy Network ORT transferred to LI 3050 from CANES/ORT under LI 2915.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Item Number / Title [DODIC]: 1 / CANES
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>[Hardware] ADNS is the gateway to the tactical Wide Area Network (WAN) afloat for Internet Protocol (IP) network operations, supporting information dissemination and external connectivity. ADNS allows services and applications to interconnect to the Defense Information Systems Network (DISN) ashore via multiple Radio Frequency (RF) resources and pier connectivity. ADNS provides the only Quality and Class of Service (QoS/CoS) routing for Multi-Service Voice, Video, and Data domains across available Radio Frequency (RF) paths.</p> <p>(t) indicates the presence of a P-5a</p> <p>Footnotes:</p> <p>(1) Operation Rolling Tide (ORT) transfers to BLI 3050 in FY16. One FY14 procured unit is installed with FY16 funds in BLI 3050. All FY15 procured units are installed in FY16 under BLI 3050.</p> <p>(2) -Legacy increments will remain in the fleet throughout the FYDP until CANES and ADNS III are installed. Tech refresh is required to field hardware to address End of Life issues at (4) ADNS Network Operation Centers (NOC): NCTS Bahrain, NCTAMS EURCENT, NCTAMS LANT, and NCTAMS PAC sites.</p> <p>(3) ADNS INC III Afloat procurement cost range: \$.5M - \$1.5M; INC III Backfit procurement cost range: \$.15M - \$.25M; installation cost range: \$.4M - \$1.0M. INC III units require an additional 3 months after delivery for required integration, assembly and testing prior to installation start. FY15 Procurement quantity (29) were procured under BLI 2915. The associated installation in FY15 (2) is funded under BLI 2915. Whereas, the remaining FY15 procurement installed in FY16 (26) and FY17 (1) is funded under BLI 3050.</p> <p>(4) -FY15 procurement quantities represent full scale ADNS INC III Ashore systems (unit cost approx. \$2,500K each) at 2 NOC sites (NCTAMS EURCENT, NCTAMS Bahrain) and minor tech refreshes at 4 sites, therefore, have lower procurement and installation costs. -ADNS INC III ashore units require an additional 3 months after delivery for required integration, assembly, testing and shipping that must occur prior to installation start. -FY15 Procurement quantity (6) were procured under BLI 2915. The associated installation in FY16 (6) were funded under BLI 3050.</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Item Number / Title [DODIC]: 1 / CANES
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) European Reassurance Initiative.		2015	SSC LANT / Charleston, SC	C / FP	** NO PCO **	Aug 2015	Sep 2015	5	80.000	Y		
2.1.1) ORT - Hardware		2015	ORT - SSC Atlantic/Pacific / SPAWAR	C / FP	SPAWAR	Sep 2015	Dec 2015	34	528.324	Y		Jun 2015
3.1.1) ADNS INC II - Ashore		2015	SAIC / San Diego, CA	C / FP	SPAWAR	Nov 2014	Mar 2015	4	50.000	Y		Oct 2014
3.1.2) ADNS INC III - Afloat		2015	SERCO, INC. / San Diego, CA	C / FP	SPAWAR	Nov 2014	Jun 2015	29	1,119.276	Y		Oct 2014
3.1.3) ADNS INC III - Ashore		2015	SERCO, INC. / San Diego, CA	C / FP	SPAWAR	Nov 2014	Jun 2015	6	1,100.000	Y		Oct 2014

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2915 / CANES				Modification Number / Title: 1 / 5F010/5F777 CANES - Afloat Non-MIP				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	601.353	278.963	273.187	212.030	-	212.030	328.178	407.983	375.485	338.050	2,551.533	5,366.762
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	601.353	278.963	273.187	212.030	-	212.030	328.178	407.983	375.485	338.050	2,551.533	5,366.762
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	601.353	278.963	273.187	212.030	-	212.030	328.178	407.983	375.485	338.050	2,551.533	5,366.762
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The consolidation of existing Afloat Network programs of record designed to provide an agile, responsive Common Computing Environment (CCE) and afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services. Migration of Non-Classified Enclave (NCE) capabilities into the CANES baseline.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2915 / CANES						Modification Number / Title: 1 / 5F010/5F777 CANES - Afloat Non-MIP			
Models of Systems Affected: Consolidated Afloat Networks & Enterprise Services (CANES) Non-MIP				Modification Type: TBD				Related RDT&E PEs: 0303138N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> 5F010/5F777 CANES - Afloat Non-MIP													
B Kits													
Recurring													
1.1.1) CANES - Afloat 5F010/5F777 (Non-MIP) - NonOrganic ⁽⁵⁾	45 / 279.321	23 / 146.683	7 / 46.912	16 / 78.910	- / -	16 / 78.910	22 / 106.735	11 / 65.054	20 / 106.507	15 / 76.738	10 / 52.727	169 / 959.587	
1.1.2) CANES - Afloat Technical Insertion (Non-MIP) - NonOrganic ⁽⁶⁾	- / -	- / -	3 / 15.649	14 / 44.399	- / -	14 / 44.399	16 / 67.493	27 / 114.866	18 / 78.081	21 / 85.977	398 / 1,169.215	497 / 1,575.680	
1.1.3) CANES - Service Life Extension Program (SLEP) (Non-MIP) - NonOrganic ⁽⁷⁾	7 / 5.274	1 / 3.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 8.424	
<i>Subtotal: Recurring</i>	- / 284.595	- / 149.833	- / 62.561	- / 123.309	- / -	- / 123.309	- / 174.228	- / 179.920	- / 184.588	- / 162.715	- / 1,221.942	- / 2,543.691	
Non-Recurring													
1.2.1) CANES - Afloat First Articles (Non-MIP) - Organic ⁽⁸⁾	8 / 47.123	1 / 7.657	1 / 8.747	1 / 7.500	- / -	1 / 7.500	1 / 7.563	1 / 7.499	- / -	- / -	1 / 7.247	14 / 93.336	
1.2.2) CANES - Non-Recurring Engineering (Non-MIP) - Organic	- / 26.907	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 26.907	
<i>Subtotal: Non-Recurring</i>	- / 74.030	- / 7.657	- / 8.747	- / 7.500	- / -	- / 7.500	- / 7.563	- / 7.499	- / -	- / -	- / 7.247	- / 120.243	
<i>Subtotal: 5F010/5F777 CANES - Afloat Non-MIP</i>	60 / 358.625	25 / 157.490	11 / 71.308	31 / 130.809	- / -	31 / 130.809	39 / 181.791	39 / 187.419	38 / 184.588	36 / 162.715	409 / 1,229.189	688 / 2,663.934	
<i>Subtotal: Procurement, All Modification Items</i>	- / 358.625	- / 157.490	- / 71.308	- / 130.809	- / -	- / 130.809	- / 181.791	- / 187.419	- / 184.588	- / 162.715	- / 1,229.189	- / 2,663.934	
Support (All Modification Items)													
2.1) CANES - Afloat Production Support (Non-MIP)	- / 14.411	- / 7.720	- / 3.293	- / 6.490	- / -	- / 6.490	- / 9.170	- / 9.469	- / 9.715	- / 8.564	- / 64.313	- / 133.145	
2.2) CANES - Afloat Design Service Agent (Non-MIP)	- / 20.852	- / 11.008	- / 6.923	- / 3.006	- / -	- / 3.006	- / 9.790	- / 8.812	- / 10.502	- / 10.625	- / 11.547	- / 93.065	
<i>Subtotal: Support</i>	- / 35.263	- / 18.728	- / 10.216	- / 9.496	- / -	- / 9.496	- / 18.960	- / 18.281	- / 20.217	- / 19.189	- / 75.860	- / 226.210	
Installation													
<i>Modification Item 1 of 1:</i> 5F010/5F777 CANES - Afloat Non-MIP	- / 207.465	- / 102.745	- / 191.663	- / 71.725	- / -	- / 71.725	- / 127.427	- / 202.283	- / 170.680	- / 156.146	- / 1,246.484	- / 2,476.618	
<i>Subtotal: Installation</i>	- / 207.465	- / 102.745	- / 191.663	- / 71.725	- / -	- / 71.725	- / 127.427	- / 202.283	- / 170.680	- / 156.146	- / 1,246.484	- / 2,476.618	
Total													
Total Cost (Procurement + Support + Installation)	601.353	278.963	273.187	212.030	-	212.030	328.178	407.983	375.485	338.050	2,551.533	5,366.762	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Modification Number / Title: 1 / 5F010/5F777 CANES - Afloat Non-MIP

Modification Item 1 of 1: 5F010/5F777 CANES - Afloat Non-MIP

Manufacturer Information

Manufacturer Name: Multiple Vendors ⁽⁹⁾				Manufacturer Location: Various			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 6			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Feb 2016	Nov 2016				
Delivery Dates	Oct 2015	Aug 2016	May 2017				
Manufacturer Name: SLEP - SSC Atlantic/Pacific				Manufacturer Location: SPAWAR			
Administrative Leadtime (in Months): 1				Production Leadtime (in Months): 2			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014						
Delivery Dates	Jan 2015						

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Afloat 5F010/5F777 (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 201.753	11 / 88.005	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	45 / 289.758
FY 2015	- / -	5 / 13.237	18 / 165.240	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 178.477
FY 2016	- / -	- / -	1 / 26.423	6 / 37.600	- / -	6 / 37.600	- / -	- / -	- / -	- / -	- / -	7 / 64.023
FY 2017	- / -	- / -	- / -	4 / 17.466	- / -	4 / 17.466	12 / 68.773	- / -	- / -	- / -	- / -	16 / 86.239
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	4 / 12.495	18 / 100.971	- / -	- / -	- / -	22 / 113.466
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 17.014	10 / 68.215	- / -	- / -	11 / 85.229
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 29.247	13 / 77.905	- / -	20 / 107.152
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 29.182	10 / 65.765	15 / 94.947
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 65.766	10 / 65.766
Total	34 / 201.753	16 / 101.242	19 / 191.663	10 / 55.066	- / -	10 / 55.066	16 / 81.268	19 / 117.985	17 / 97.462	18 / 107.087	20 / 131.531	169 / 1,085.057

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	28	2	4	3	3	10	2	3	10	4	3	2	1	4	6	4	2	4	12	4	2	1	3	1	6	7	6	5	2	25	169
Out	22	6	-	3	4	3	7	4	4	6	8	4	3	1	4	3	7	2	4	11	2	4	2	3	1	6	6	5	6	28	169

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Modification Number / Title: 1 / 5F010/5F777 CANES - Afloat Non-MIP

Modification Item 1 of 1: 5F010/5F777 CANES - Afloat Non-MIP

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Afloat Technical Insertion (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	3 / 7.955	- / -	3 / 7.955	- / -	- / -	- / -	- / -	- / -	3 / 7.955
FY 2017	- / -	- / -	- / -	1 / 8.704	- / -	1 / 8.704	13 / 43.071	- / -	- / -	- / -	- / -	14 / 51.775
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.088	14 / 42.897	- / -	- / -	- / -	16 / 45.985
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 41.401	19 / 51.348	- / -	- / -	27 / 92.749
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 21.870	14 / 44.034	- / -	18 / 65.904
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 5.025	18 / 48.243	21 / 53.268
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	398 / 1,066.710	398 / 1,066.710
Total	- / -	- / -	- / -	4 / 16.659	- / -	4 / 16.659	15 / 46.159	22 / 84.298	23 / 73.218	17 / 49.059	416 / 1,114.953	497 / 1,384.346

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	-	-	2	1	-	1	7	1	5	2	7	2	5	8	12	5	2	4	4	7	3	419	497
Out	-	-	-	-	-	-	-	-	-	-	-	2	-	1	1	6	2	3	5	6	2	4	10	7	9	3	4	4	3	425	497

Method of Implementation: [none specified]:: Installation Name: CANES - Service Life Extension Program (SLEP) (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 5.712	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	7 / 5.712
FY 2015	- / -	1 / 1.503	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.503
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	7 / 5.712	1 / 1.503	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 7.215

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Modification Number / Title: 1 / 5F010/5F777 CANES - Afloat Non-MIP

Modification Item 1 of 1: 5F010/5F777 CANES - Afloat Non-MIP

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Service Life Extension Program (SLEP) (Non-MIP)

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	7	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8
Out	6	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8

Method of Implementation (Organic): CANES - Afloat First Articles (Non-MIP) - Not Installed

Installation Quantity: 14

Footnotes:

(5) CANES Afloat production units require an additional 4 months after delivery for operational integration, assembly and testing prior to installation start. Installations do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total lead time, including admin lead time, is 11 months. - First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability. - Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platform) has fewer users and runs fewer applications than a LHD/CVN (force level platform). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems. - Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed (ISNS Alpha/Charlie/Delta/Legacy), geographic location of the installation, and length of the availability. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same CVN had a legacy ATM LAN the CANES installation is estimated to be \$22.4M. The legacy LAN installation has the additional cost of rewiring all the computer drops, while the newer variants of ISNS allow for reuse of drops during the CANES installation. The decrease in installation unit cost in FY17 compared to FY16 is due to a smaller number of Force Level installations in FY17.

(6) CANES Afloat technical insertion units require an additional 4 months after delivery for operational integration, assembly and testing prior to installation start. Installations do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total lead time, including admin lead time, is 11 months. - First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

(7) Service Life Extension Program (SLEP) provides updated hardware and software components to platforms with legacy networks that must remain in service longer than planned due to CANES installation deferrals. SLEP procurements and installations vary greatly in scope depending on the equipment required and have wide variations in unit cost.

(8) CANES first articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. First articles are separate from production units and must be bought prior to the procurement of the corresponding production units. Procurement Lead Time (PLT) is 8 months for First Articles (DDG,CVN, submarines, etc). All following production articles of the same variant require a PLT of 6 months. CANES First Articles are not installed. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platforms) has fewer users and runs fewer applications than a LHD/CVN/LPD (force level platforms). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems. The FY15 and FY17 procurements are unit level systems, the FY16 unit is a force level system.

(9) CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions & Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. Contract will be used for both production and tech refresh units

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2915 / CANES			Modification Number / Title: 2 / 5F010/5F776 CANES - Ashore Non-MIP					

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	9.367	-	2.454	-	-	-	21.549	9.536	20.322	8.800	50.729	122.757
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	9.367	-	2.454	-	-	-	21.549	9.536	20.322	8.800	50.729	122.757
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	9.367	-	2.454	-	-	-	21.549	9.536	20.322	8.800	50.729	122.757
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The consolidation of existing Ashore Network programs of record designed to provide an agile, responsive Common Computing Environment (CCE) and the eventual addition of Afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services for Maritime Operation Command (MOC), Regional Network Operations and Security Centers (RNOSC) and Technical Training Equipment (TTE).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2915 / CANES					Modification Number / Title: 2 / 5F010/5F776 CANES - Ashore Non-MIP			
Models of Systems Affected: Consolidated Afloat Networks & Enterprise Services (CANES) Non-MIP					Modification Type: TBD					Related RDT&E PEs: 0303138N			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: 5F010/5F776 CANES - Ashore Non-MIP</i>													
B Kits													
Recurring													
1.1.1) CANES - Ashore 5F010/5F776 (Non-MIP) - NonOrganic ⁽¹⁰⁾	2 / 3.637	- / -	1 / 1.334	- / -	- / -	- / -	2 / 10.361	1 / 5.951	2 / 11.317	1 / 5.678	- / -	9 / 38.278	
1.1.2) CANES - Ashore - Technical Insertion (Non-MIP) - NonOrganic ⁽¹¹⁾	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.695	- / -	1 / 1.395	- / -	27 / 30.993	30 / 35.083	
<i>Subtotal: Recurring</i>	<i>- / 3.637</i>	<i>- / -</i>	<i>- / 1.334</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.056</i>	<i>- / 5.951</i>	<i>- / 12.712</i>	<i>- / 5.678</i>	<i>- / 30.993</i>	<i>- / 73.361</i>	
Non-Recurring													
1.2.1) CANES - Ashore First Articles (Non-MIP) - Organic ⁽¹²⁾	1 / 3.481	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.481	
<i>Subtotal: Non-Recurring</i>	<i>- / 3.481</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 3.481</i>	
<i>Subtotal: 5F010/5F776 CANES - Ashore Non-MIP</i>	<i>3 / 7.118</i>	<i>- / -</i>	<i>1 / 1.334</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>4 / 13.056</i>	<i>1 / 5.951</i>	<i>3 / 12.712</i>	<i>1 / 5.678</i>	<i>27 / 30.993</i>	<i>40 / 76.842</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 7.118</i>	<i>- / -</i>	<i>- / 1.334</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.056</i>	<i>- / 5.951</i>	<i>- / 12.712</i>	<i>- / 5.678</i>	<i>- / 30.993</i>	<i>- / 76.842</i>	
Support (All Modification Items)													
2.1) CANES - Ashore Production Support (Non-MIP)	- / 0.129	- / -	- / 0.070	- / -	- / -	- / -	- / 0.687	- / 0.313	- / 0.669	- / 0.299	- / 1.631	- / 3.798	
2.2) CANES - Ashore Design Services Agent (Non-MIP)	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.456	- / 0.648	- / 0.472	- / 0.096	- / -	- / 1.672	
<i>Subtotal: Support</i>	<i>- / 0.129</i>	<i>- / -</i>	<i>- / 0.070</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.143</i>	<i>- / 0.961</i>	<i>- / 1.141</i>	<i>- / 0.395</i>	<i>- / 1.631</i>	<i>- / 5.470</i>	
Installation													
<i>Modification Item 1 of 1: 5F010/5F776 CANES - Ashore Non-MIP</i>	<i>- / 2.120</i>	<i>- / -</i>	<i>- / 1.050</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 7.350</i>	<i>- / 2.624</i>	<i>- / 6.469</i>	<i>- / 2.727</i>	<i>- / 18.105</i>	<i>- / 40.445</i>	
<i>Subtotal: Installation</i>	<i>- / 2.120</i>	<i>- / -</i>	<i>- / 1.050</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 7.350</i>	<i>- / 2.624</i>	<i>- / 6.469</i>	<i>- / 2.727</i>	<i>- / 18.105</i>	<i>- / 40.445</i>	
Total													
Total Cost (Procurement + Support + Installation)	9.367	-	2.454	-	-	-	21.549	9.536	20.322	8.800	50.729	122.757	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Modification Number / Title: 2 / 5F010/5F776 CANES - Ashore Non-MIP

Modification Item 1 of 1: 5F010/5F776 CANES - Ashore Non-MIP

Manufacturer Information							
Manufacturer Name: TBD (Competitive Procurement) ⁽¹³⁾				Manufacturer Location: TBD (Competitive Procurement)			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 5			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Feb 2016					
Delivery Dates		Jul 2016					

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Ashore 5F010/5F776 (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 2.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 2.120
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	1 / 1.050	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.050
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 5.230	- / -	- / -	- / -	- / -	2 / 5.230
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.624	- / -	- / -	- / -	1 / 2.624
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 5.372	- / -	- / -	2 / 5.372
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.727	- / -	1 / 2.727
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 2.120	- / -	1 / 1.050	- / -	- / -	- / -	2 / 5.230	1 / 2.624	2 / 5.372	1 / 2.727	- / -	9 / 19.123

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
In	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	2	-	-	-	1	-	-	-	1	-	9
Out	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	2	-	-	-	1	-	-	1	-	9

Method of Implementation: [none specified]:: Installation Name: CANES - Ashore - Technical Insertion (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2915 / CANES	Modification Number / Title: 2 / 5F010/5F776 CANES - Ashore Non-MIP

Modification Item 1 of 1: 5F010/5F776 CANES - Ashore Non-MIP

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Ashore - Technical Insertion (Non-MIP)

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.120	- / -	- / -	- / -	- / -	2 / 2.120
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.097	- / -	- / -	1 / 1.097
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 18.105	27 / 18.105
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.120	- / -	1 / 1.097	- / -	27 / 18.105	30 / 21.322

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-	27	30
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	27	30

Method of Implementation (Organic): CANES - Ashore First Articles (Non-MIP) - Not Installed

Installation Quantity: 1

Footnotes:

⁽¹⁰⁾ Ashore procurement quantities are detailed as follows: Technical Training Equipment (TTE) - FY15 (0), FY16 (1), FY17-FY21 (0); Maritime Operation Center (MOC) - FY15-FY17 (0); FY18 (2), FY19(1), FY20 (2), FY21 (1). -A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years commensurate with the procurement quantities outlined in above note. -TTE has no associated DSA requirements.

⁽¹¹⁾ -A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years.

⁽¹²⁾ Production Lead Time is 8 months for First Articles. First Articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. All following articles of the same variant require a Production Lead Time of 5 months for Ashore units and 6 months for afloat units. Total Ashore lead time, including 1 month Admin lead time, is 6 months. Ashore production lead times require one month less than Afloat production lead times due to the long lead time afloat production quality racks and minimized shock and vibration requirements for shore facilities. CANES First Articles are not installed. First Article average unit cost fluctuations are attributable to variances in system configuration requirements among shore sites. A shore training unit (TTE) has fewer users and runs fewer applications than a shore Maritime Operations Center (MOC). MOCs are larger in scale compared to the shore training sites and represent a super set of users, applications and connected systems. The prior year Ashore First Article procurement is one training unit.

⁽¹³⁾ FY 2016 Contractor and location will be competed.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2920 / RADIAC
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	45.441	5.153	8.294	8.092	-	8.092	10.675	8.257	8.618	8.691	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	45.441	5.153	8.294	8.092	-	8.092	10.675	8.257	8.618	8.691	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	45.441	5.153	8.294	8.092	-	8.092	10.675	8.257	8.618	8.691	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$0.998M to account for the availability of prior year execution balances and by \$0.382M for targeted Balanced Budget Agreement reduction.

The Radiation Detection, Indication and Computation (RADIAC) Program is responsible for providing radiation monitoring instruments that detect and measure ionizing radiation. These instruments are used on all Navy, Coast Guard and Military Sealift Command vessels, and at every Navy shore installation, in order to ensure the safety of personnel, continuity of operations in radiological or nuclear contingencies, and protection of the environment.

[P40A / M2100 - Survey Meters]: M2100. Radiation survey meters, required by 10CFR20 and the Navy's mission, are used to detect, measure and monitor radiation levels in support of operations involving radioactive materials. Navy operations associated with radioactive materials include operation of nuclear reactors, maintenance on radioactive systems or components, testing of components for structural integrity (X-ray), research, and medical diagnostics and treatment. Additionally, radiation survey meters are used to search for, locate and intercept radioactive material, and in responding to casualties involving radioactive materials. Where radiation survey meters are used to support operations involving radioactive material, they provide real-time information used to control personnel radiation exposure and to identify and control the spread of radioactivity. When used to search for radioactive material, they provide an extremely reliable method of identifying radioactive material while minimizing the risk to personnel conducting these operations.

[P40A / Radiological Detection System]: M2100, Radiological Detection System (RDS): This is a basic RADIAC instrument used in Consequence Management and Occupational Safety and Health applications by all ships (U.S. Navy, U.S. Coast Guard and Military Sealift Command) and shore commands. It is used to survey for radioactive surface contamination pursuant to nuclear plant operations or nuclear plant maintenance; following medical procedures involving radioactive isotopes; or casualties and events that release radioactivity into the environment such as after a nuclear reactor accident or the use of weapons involving nuclear devices or radioactivity. It is also used to perform surveys for various types of radiation in order to monitor environmental conditions in areas and spaces immediately adjacent to where radioactive material is stored or used during routine operations; where nuclear plant operations occur; and where radioisotopes are used for maintenance, such as during industrial radiography operations.

The RDS consists of a control unit and a suite of probes (Alpha, Beta, Gamma, Neutron) the latter of which survey for different types of radioactivity. The control unit is necessary for all applications but the four probes are used for different situations. That means the control unit will have the highest procurement objective but the four probes will be bought in varying quantities. The probes will be configured as a separate unit of issue and provided to customers dependent upon the intended end use.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2920 / RADIAC
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>This instrument will replace the Navy's 30-year old IM-265/PDQ (Multi-Function RADIAC) control unit and its ancillary probes. It is being developed by the Joint Project Manager, Radiological & Nuclear Defense in order that the Army, Navy, Marine Corps and Air Force will have a Joint instrument that will enable interoperability and surge support to forward deployed units from all the components, neither of which feature was available during Operation Tomodachi because all the components currently use different radiological detection systems.</p> <p>[P40A / M2200 - Dosimetry]: M2200. Dosimetry consists of radiation sensitive materials that are used for detecting and measuring an individual's exposure to ionizing radiation and to aid in minimizing this exposure. Dosimetry is required to be worn by personnel who work with sources of radioactivity or by personnel responding to casualties involving radioactivity. Most dosimeters are small devices that are worn on the belt, on a lanyard around the neck or attached to a shirt. Some dosimeters provide direct readout enabling the wearer to monitor and control radiation exposure. Other types of dosimeters must be removed from the wearer to be evaluated in special dosimeter readers that extract the recorded radiation exposure value from the dosimeter. Radiation exposure measured by dosimetry is recorded in individual medical records when formal tracking of the radiation exposure is required.</p> <p>In accordance with 10CFR20, dosimetry is required to be worn by personnel who work with sources of radioactivity. In the Navy this includes personnel in the Nuclear Propulsion, Nuclear Weapons, and Medical and Radiological Affairs Support programs. In these programs radiation exposure is measured by dosimetry and recorded in individual medical records for tracking purposes. Dosimetry is also worn by personnel responding to casualties involving radioactivity to control their exposure within acceptable levels.</p> <p>[P40A / DT-702 Card]: M2200, DT-702 Card: The DT-702 Thermoluminescent Dosimeter (TLD) is a small metal card, a little smaller and thinner than a domino, that contains four circular slots containing different elements that are sensitive to various types of radioactivity. The card is placed in a plastic holder so it is protected and able to be worn by personnel on a lanyard or on their clothing. It is issued to sailors and civilians who are occupationally exposed to radiation. This includes Navy programs such as Nuclear Propulsion, Explosive Ordnance Disposal, Nuclear Weapons, Industrial Radiography and Medical. The DT-702 provides primary dosimetry, whereby dosage accumulated on this card can be entered into the respective person's permanent medical files. The processes associated with the DT-702 also are compliant with 10CFR20 by being approved by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards & Technology (NIST). The cards are issued to individuals and tracked by serial numbers. The cards are periodically turned in (and another card is issued so there is no coverage gap) to have the dose extracted by an 8800 Reader. The process by which the cards are read include several heating cycles that eventually make the receptor elements unusable, so the life of a TLD is finite -- about 100 reads -- and then they have to be replaced. Cards are procured approximately every two to three years in order to achieve the lowest unit price available when buying in quantity.</p> <p>[P40A / Battlefield Dosimeter]: M2200, Battlefield Dosimeter: A dosimeter designed for use during nuclear or radiological events involving high energy gamma and neutron irradiation. The concept of operations for such a dosimeter is that it is issued at MOP (Military Operational Posture) III to allow the commander to manage the exposure received by members of recovery teams. It is also used to perform triage on casualties, allowing medical personnel to effectively allocate their ministrations.</p> <p>[P40A / Battlefield Dosimeter Cases]: M2200, Battlefield Dosimeter Cases: The Battlefield Dosimeter will spend much of its time aboard ships stored in Damage Control Lockers. The instrument will also have to be shipped to and from a RADIAC Calibration Laboratory to undergo periodic calibrations. Because allowances for the instruments on the various ship classes range from 2,000 on a CVN to 35 each on an LCS, cases configured to hold different quantities (25, 50, 100, 500) will be procured to afford the necessary protection for storage and shipping while maximizing shipboard storage space efficiency. The price shown is for a case that holds 100 units; costs will vary for smaller and larger cases.</p> <p>[P40A / Electronic Personal Dosimeter]: M2200, Electronic Personal Dosimeter (EPD): An electronic dosimeter that includes a real-time digital display of radiation dose being received. These so-called secondary dosimeters are normally used in conjunction with the DT-702 primary dosimeter in order to provide the wearer with real-time radiation dose information and alarm features that aid workers in controlling their radiation exposure. The DT-702 (Cost Element 2.1) is the Navy's approved dosimeter to record dose of record in each individual's medical record, but it is a "passive" device; i.e., it does not immediately display the dose being received. Instead, the dose is stored on the card on four different elements. It must be turned in and read by a machine (the 8800 Reader), a process that takes weeks, and therefore does not indicate if the wearer is in imminent danger.</p> <p>[P40A / M2200 NWCF Contract Service Fee]: M2200 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2920 / RADIAC
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A / M2400 - Other RADIAC]: M2400. Other RADIAC. The RADIAC Program fields 70 different families of instruments, consisting of a total of almost 43,000 instruments and 400,000 dosimeters. Those families that fall into similar functionality have been grouped here into the M2100, M2200, M2500 and M2600 Cost Codes. This Cost Code consists of instruments that have specialized functions that only they perform, and therefore would require an unmanageable and meaningless number of additional Cost Codes if each were addressed individually. In the context of the family metaphor used here, these instruments are no less important but are orphans in the sense there are not many of similar functionality that they could be grouped with. This Cost Code also supports replenishment of Ready for Issue (RFI) stocks when instruments in any Cost Code fall below stock levels sufficient to meet quarterly demand. This Cost Element (Spares) is a Continuing element that varies year-to-year based on emergent requirements and the quantity and unit cost of the item(s) being replenished.</p> <p>Supports instruments that are disparate in functionality and cannot be readily grouped into the other RADIAC Cost Codes.</p> <p>[P40A / Criticality Monitor]: M2400, Criticality Monitor: Radiation detection system used to continuously monitor general area radiation levels and designed to detect an uncontrolled reactor criticality event. This system is used in reactor construction and overhaul facilities to ensure compliance with 10CFR20. Award date of FY14 funds has slipped due to technical delays. In FY15 \$65K is needed to pay for environmental and electromagnetic interference testing in addition to the cost of the equipment.</p> <p>[P40A / Criticality Monitor Technical Repair Standard]: M2400, Criticality Monitor Technical Repair Standard: Technical Repair Standard data, calibration software and initial spare parts for the Criticality Monitor.</p> <p>[P40A / Tool Contamination Monitor, Shore]: M2400, Tool Contamination Monitor: Used to scan tools and other equipment prior to release from a radiological work area to a general work area in order to ensure the equipment did not become contaminated with radiation while being used in the radiological area.</p> <p>[P40A / Tool Contamination Monitor, Ship]: M2400, Tool Contamination Monitor Ship: Certification that the units procured for shipboard use will meet DoD Standard 1399 for pitch and roll.</p> <p>[P40A / Calibrators]: Calibrators are the basic tool used to calibrate all Navy radiological detection equipment. They consist of a high energy radiological source (Cs-137) in a shielded container that is located in a specially constructed room, or "range." A technician places the instrument to be calibrated at a specific calibration point in the range and remotely operates the calibrator by raising the source out of its container so that the radiological source becomes exposed and it irradiates the instrument. The instrument's response to the radiation is measured so that it can be calibrated to specific tolerances. The current suite of AN/UDM-1B calibrators is over 30 years old, and the natural decay of the strength of the radioactive source over time restricts calibration effectiveness by limiting the scale of calibration points below American National Standards Institute (ANSI) requirements that are followed in accordance with Navy policy. Also, due to the age of the calibrators, there are several parts no longer supported by the manufacturer, and a malfunctioning calibrator (e.g., where the source gets stuck in the exposed position) poses a very high safety risk.</p> <p>[P40A / Calibrator Parts & Training]: Initial spare parts and vendor training at each of the seven RADIAC Calibration Laboratories where the equipment will be installed.</p> <p>[P40A / Spares]: M2400, Spares: Purchase of additional quantities of existing models of RADIACs to replenish or supplement stocks of spare items due to minor increases in program allowances, minor inventory losses, or due to items being beyond economical repair.</p> <p>[P40A / M2400 NWCF Contract Service Fee]: M2400 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p> <p>[P40A / M2500 - Air Sampling Systems]: M2500. Monitoring for airborne radioactivity is done to detect leaks from nuclear reactors or associated systems to ensure that radioactivity is not inadvertently released to the environment from these operations. Additionally, monitoring for airborne radioactivity is performed during maintenance on radioactive components or during events that might cause radioactivity to be released to the air. Monitoring for airborne radioactivity is normally done by drawing air across filter paper to collect airborne radioactive particles. This filter paper is then evaluated by radiation detectors and the concentration of airborne radioactivity is calculated. The types of airborne radioactivity monitoring systems include fixed systems and portable systems. Fixed systems sample air from pre-determined locations and normally include built-in radiation detectors for determining the airborne radioactivity concentration. Portable systems can be used to sample air at any desired location, but normally require the use of separate radiation detection instruments to measure the radioactive particles deposited on the filter paper to determine the airborne radioactivity concentration.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2920 / RADIAC
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A / Air Particle Detector Ship Frames]: M2500, Air Particle Detector, Ship, Frames: Government Furnished Material (GFM) to be provided to the manufacturer of the APD Ship (IM-272/WDQ). This material consists of the housing and specific internal components from the IM-239/WDQ. The housings and identified internal components from the IM-239/WDQ will be prepared in the depot level maintenance facility for the item and provided to the manufacturer of the IM-272/WDQ. Use of these housings and components reduces the overall cost of the IM-272/WDQ and avoids the cost of a ship alteration by ensuring the IM-272/WDQ will have the same shipboard footprint as the IM-239/WDQ.</p> <p>[P40A / Air Particle Detector, Ship]: M2500, Air Particle Detector, Ship: Airborne radioactivity monitoring system for use on Navy nuclear ships. This system (IM-272/WDQ) is a replacement for the existing IM-239/WDQ used on all Navy nuclear ships. The IM-272/WDQ incorporates significant technology enhancements that will reduce spurious false alarms and reduce operator maintenance.</p> <p>[P40A / APD Ship Engineering Change Proposal]: M2500, APD Ship Engineering Change Proposal (ECP): Naval Reactors has directed an ECP be designed and incorporated that will reduce noise and vibration for the IM-272/WDQ in order that it will meet (classified) specifications for submarines. No further production units will be ordered until the ECP is incorporated into the design.</p> <p>[P40A / Air Particle Detector Ship Data]: M2500, Air Particle Detector, Ship Data: Upon award of the contract in September 2014, the cost of Contract Data Requirements List and Contract Line Item Number data became known. This data includes a one-time cost for Technical Manuals in FY15. Subsequent years include the Technical Repair Standard, drawings, and production reports with every delivery order.</p> <p>[P40A / APD Ship Initial Spare Parts]: M2500, Air Particle Detector, Ship, Initial Spare Parts: In FY17 procure initial spare parts to support fielding. In FY18-FY20, procure parts to upgrade the initial 40 units procured in FY14 to a new acoustic standard directed by Naval Reactors.</p> <p>[P40A / Air Particle Detector, Shore]: M2500, Air Particle Detector (APD) Shore: This system is a replacement for the existing IM-239/WDQ designed for ships that is also currently used in radiological maintenance facilities ashore. The APD Shore incorporates significant technology enhancements that will reduce spurious false alarms and reduce operator maintenance, and since it does not need to be hardened for shipboard use, it will be cheaper to procure and maintain than the new IM-272/WDQ units (Cost Element 4.2) being procured for ships.</p> <p>[P40A / APD Shore Initial Spare Parts]: M2500, Air Particle Detector, Shore, Initial Spare Parts: Initial spare parts and Tc-99 check sources.</p> <p>[P40A / Air Particle Sampler]: M2500, Air Particle Sampler: Portable airborne radioactivity sampling system. Used during radiological work or during radiological casualties to draw air across a filter paper to collect radioactive particles. The filter paper is then evaluated using separately provided radiation detectors to determine the concentration of airborne radioactivity.</p> <p>[P40A / Air Particle Sampler Data]: Technical Repair Standard, drawings and First Article Test Report for the Air Particle Sampler</p> <p>[P40A / Tritium Monitor]: M2500, Tritium Monitor: The AN/PDR-73 Tritium Monitor is used at nuclear weapons storage facilities and research laboratories to sample the air for the presence of tritium, which is a toxic radiation hazard if inhaled. The current instrument is 30 years old and cannot be repaired due to obsolete components. At the current loss rate due to normal wear and tear there will be insufficient assets to meet operational requirements, so a replacement must be found.</p> <p>[P40A / Tritium Monitor Testing, Data, Parts & Training]: M2500, Tritium Monitor Initial Spare Parts Testing, Data & Training: In FY17 procure Electro Magnetic Interference testing, Technical Manuals, and Technical Repair Standard. In FY18 procure initial spare parts to support fielding and factory training of RADIAC Calibration Laboratory Electronic Technicians and program engineers.</p> <p>[P40A / M2500 NWCF Contract Service Fee]: M2500 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p> <p>[P40A / M2600 - Laboratory Test Equipment]: M2600. This Cost Code supports specialized equipment usually found in laboratories, hospitals and test facilities. This kind of equipment is distinct enough to warrant separating it for management purposes from the M2400 Cost Code.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2920 / RADIAC
ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A / Gamma Counter Upgrade]: M2600, Gamma Counter Upgrade: This laboratory equipment provides the capability of detecting loose contamination and the advantage of distinguishing if there is beta or gamma radiation/contamination present in the area. It provides automation in both the actual counting of samples and their automatic analysis. The upgrade is to software and hardware to improve performance and increase functionality. The upgrade will change the detecting medium to increase the counting efficiency.</p> <p>[P40A / M2600 NWCF Contract Service Fee]: M2600 NWCF Contract Service Fee: The PCO for hardware acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code hardware acquisitions.</p> <p>[P40A / M2830 - Support - Production Engineering]: M2830, Production Engineering: Labor cost of the government and contractor personnel who prepare the acquisitions.</p> <p>[P40A / Production Engineering Carderock]: M2830, Production Engineering: Labor cost of the government Engineers, Health Physicists, Scientists and others who prepare the acquisitions.</p> <p>[P40A / Production Engineering ISEA]: M2830, Production Engineering: Labor cost of the contractor Engineers, Logisticians, Technical Writer, Program Analyst, and Systems Analysts who help prepare the acquisitions.</p> <p>[P40A / M2830 NWCF Contract Service Fee]: M2830 NWCF Contract Service Fee: The PCO for acquisitions is a Navy Working Capital Fund activity that charges a set fee for each contract award and modification. The applicable fee for a given year is applied to the total value of the Cost Code services acquisition.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2920 / RADIAC
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ID Code (A=Service Ready, B=Not Service Ready): B	Program Elements for Code B Items: 0708017N	Other Related Program Elements: 0603542N, 0702856N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	RADIAC	P-5a		- / 45.441	- / 5.153	- / 8.294	- / 8.092	- / -	- / 8.092
P-40	Total Gross/Weapon System Cost			- / 45.441	- / 5.153	- / 8.294	- / 8.092	- / -	- / 8.092

*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:
 Title 10 of the Code of Federal Regulations, Part 20 (10 CFR 20) requires RADIAC instruments be used to ensure the safety of personnel who work with or are exposed to radioactive materials in their work. Additionally, the Navy's mission requires personnel and ships to have the ability to operate in radiological environments and the ability to identify and interdict radiological Weapons of Mass Destruction (WMD). Navy programs that require RADIAC instruments for Occupational Safety & Health (OSH) reasons under the provisions of 10 CFR 20 include Naval Nuclear Propulsion, Nuclear Weapons, Medical, and Radiological Affairs Support. Non-OSH programs include Radiological Defense, Consequence Management, Training, Technical (RADIAC calibration, shielding evaluation, research, etc.) and Radiological Search (maritime interdiction to locate or intercept WMD).

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2920 / RADIAC **Aggregated Items Title:** RADIAC

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
2) M2200 - Dosimetry																				
2.1) DT-702 Card ^(†)	A		21.36	115,000	2.456	-	-	-	46.71	30,000	1.401	-	-	-	-	-	-	-	-	-
2.2) Battlefield Dosimeter ^{(1)(†)}	A		149.00	20,000	2.980	152.00	13,000	1.976	155.00	19,000	2.945	158.00	6,000	0.948	-	-	-	158.00	6,000	0.948
2.3) Battlefield Dosimeter Cases ^(†)	A		-	-	-	417.00	200	0.083	425.00	200	0.085	434.00	200	0.087	-	-	-	434.00	200	0.087
2.4) Electronic Personal Dosimeter ^(†)	A		257.04	16,188	4.161	-	-	-	441.00	150	0.066	463.00	2,000	0.926	-	-	-	463.00	2,000	0.926
2.5) M2200 NWCF Contract Service Fee	A		-	-	0.108	-	-	0.050	-	-	0.207	-	-	0.084	-	-	-	-	-	0.084
Subtotal: 2) M2200 - Dosimetry			-	-	9.705	-	-	2.109	-	-	4.704	-	-	2.045	-	-	-	-	-	2.045
3) M2400 - Other RADIAC																				
3.1) Criticality Monitor ^(†)	A		12,000.00	50	0.600	-	-	-	11,998.35	50	0.600	-	-	-	-	-	-	-	-	-
3.2) Criticality Monitor Technical Repair Standard	B		-	-	-	-	-	-	-	-	0.082	-	-	-	-	-	-	-	-	-
3.3) Tool Contamination Monitor, Shore ^(†)	A		87,285.71	7	0.611	-	-	-	89,234.88	8	0.714	-	-	-	-	-	-	-	-	-
3.4) Tool Contamination Monitor, Ship	A		-	-	-	-	-	-	-	-	0.041	-	-	-	-	-	-	-	-	-
3.7) Spares	A		-	-	6.610	-	-	0.105	-	-	0.165	-	-	0.039	-	-	-	-	-	0.039
3.8) M2400 NWCF Contract Service Fee	A		-	-	0.111	-	-	-	-	-	0.062	-	-	-	-	-	-	-	-	-
Subtotal: 3) M2400 - Other RADIAC			-	-	7.932	-	-	0.105	-	-	1.664	-	-	0.039	-	-	-	-	-	0.039
4) M2500 - Air Sampling Systems																				
4.1) Air Particle Detector Ship Frames ^{(2)(†)}	A		6,850.00	100	0.685	6,580.00	50	0.329	6,700.00	50	0.335	-	-	-	-	-	-	-	-	-
4.2) Air Particle Detector, Ship ^{(3)(†)}	A		42,975.00	40	1.719	-	-	-	-	-	-	56,778.30	40	2.271	-	-	-	56,778.30	40	2.271
4.3) APD Ship Engineering Change Proposal	B		-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	-	-	-	-
4.4) Air Particle Detector Ship Data	A		-	-	-	-	-	1.396	-	-	-	-	-	0.116	-	-	-	-	-	0.116
4.5) APD Ship Initial Spare Parts	A		-	-	-	-	-	-	-	-	-	-	-	0.783	-	-	-	-	-	0.783
4.6) Air Particle Detector, Shore ^(†)	A		17,400.00	110	1.914	-	-	-	-	-	-	18,000.00	20	0.360	-	-	-	18,000.00	20	0.360

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2920 / RADIAC **Aggregated Items Title:** RADIAC

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
4.7) APD Shore Initial Spare Parts	A		-	-	-	-	-	-	-	-	0.307	-	-	-	-	-	-	-	-	
4.8) Air Particle Sampler ^(†)	A		-	-	-	1,227.43	200	0.245	-	-	-	1,307.00	200	0.261	-	-	-	1,307.00	200	0.261
4.9) Air Particle Sampler Data	A		-	-	-	-	-	0.150	-	-	-	-	-	-	-	-	-	-	-	
4.10) Tritium Monitor ^(†)	A		-	-	-	-	-	-	-	-	-	20,000.00	50	1.000	-	-	-	20,000.00	50	1.000
4.11) Tritium Monitor Testing, Data, Parts & Training	A		-	-	-	-	-	-	-	-	-	-	-	0.250	-	-	-	-	-	0.250
4.12) M2500 NWCF Contract Service Fee	A		-	-	0.215	-	-	0.043	-	-	0.035	-	-	0.217	-	-	-	-	-	0.217
Subtotal: 4) M2500 - Air Sampling Systems			-	-	4.533	-	-	2.163	-	-	1.177	-	-	5.258	-	-	-	-	-	5.258
6) M2830 - Support - Production Engineering																				
6.1) Production Engineering Carderock	A		-	-	13.209	-	-	0.571	-	-	0.520	-	-	0.525	-	-	-	-	-	0.525
6.2) Production Engineering ISEA	A		-	-	10.042	-	-	0.200	-	-	0.220	-	-	0.225	-	-	-	-	-	0.225
6.3) M2830 NWCF Contract Service Fee	A		-	-	0.020	-	-	0.005	-	-	0.009	-	-	-	-	-	-	-	-	-
Subtotal: 6) M2830 - Support - Production Engineering			-	-	23.271	-	-	0.776	-	-	0.749	-	-	0.750	-	-	-	-	-	0.750
Total			-	-	45.441	-	-	5.153	-	-	8.294	-	-	8.092	-	-	-	-	-	8.092

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

^(†) indicates the presence of a P-5a

Footnotes:

⁽¹⁾ M2200, Battlefield Dosimeter (BD): Subsequent to the Fukushima Daiichi nuclear plant incident in 2011, a capability gap was identified wherein ships in the deployed Battle Group were exposed to the lower levels of radiation normally associated with occupational radiological workers. This subjected sailors to potential radiological sickness or damage and hampered the continuity of operations because the existing BD is designed to record and display exposure beginning only at 10 rem (roentgen equivalent in man), a level associated with the detonation of a nuclear weapon. This is a specification vestige of the Cold War. The millirem, which is one thousandth of a rem, is used to measure dosages encountered in daily life, such as the amount of radiation received from medical X-rays, long airplane flights, background sources, and the lower levels of radiation normally associated with occupational radiological work, during which workers are exposed on a continuous basis and why their exposures are closely monitored and recorded. To fill the gap, specifications were added to the new BD for a device that could provide real-time feedback of dose received at occupational levels.

⁽²⁾ M2500, Air Particle Detector, Ship, Frames: No GFM will be prepared in FY 2017 because no production units will be ordered in 2016. This gap will keep the existing supply of Ready for Issue IM-239/WDQ at levels sufficient to meet demand. When work resumes in FY 2018 the cost will increase by \$250 per unit above inflation because of the units the contractor has already received, they have reported a failure rate of one internal component of 40%. This is significant enough to warrant its replacement in every piece of GFM they have received or will receive in the future.

⁽³⁾ M2500, Air Particle Detector, Ship: No production units will be ordered in FY 2016 due to an Engineering Change Proposal ordered by Naval Reactors (Cost Element 4.3).

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10			P-1 Line Item Number / Title: 2920 / RADIAC					Aggregated Items: RADIAC				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2) M2200 - Dosimetry												
2.1) DT-702 Card		2016	Thermo Fisher Scientific / Franklin, MA	SS / IDIQ	NSWC Carderock	Mar 2016	Jun 2016	30,000	46.71	Y		May 2014
2.2) Battlefield Dosimeter ⁽¹⁾		2014	Radiation Safety & Control Services / Stratham, NH	C / IDDQ	NSWC Carderock	Sep 2015	Mar 2016	20,000	149.00	Y		Dec 2012
2.2) Battlefield Dosimeter ⁽¹⁾		2015	Radiation Safety & Control Services / Stratham, NH	SS / IDIQ	NSWC Carderock	Sep 2016	Mar 2017	13,000	152.00	Y		Dec 2012
2.2) Battlefield Dosimeter ⁽¹⁾		2016	Radiation Safety & Control Services / Stratham, NH	SS / IDIQ	NSWC Carderock	Sep 2016	Mar 2017	19,000	155.00	Y		Dec 2012
2.2) Battlefield Dosimeter ⁽¹⁾		2017	Radiation Safety & Control Services / Stratham, NH	SS / IDIQ	NSWC Carderock	May 2017	Nov 2017	6,000	158.00	Y		Feb 2012
2.3) Battlefield Dosimeter Cases		2015	Radiation Safety & Control Services / Stratham, NH	C / IDDQ	NSWC Carderock	Sep 2016	Mar 2017	200	417.00	Y		Dec 2012
2.3) Battlefield Dosimeter Cases		2016	Radiation Safety & Control Services / Stratham, NH	SS / IDIQ	NSWC Carderock	Sep 2016	Mar 2017	200	425.00	Y		Dec 2012
2.3) Battlefield Dosimeter Cases		2017	Radiation Safety & Control Services / Stratham, NH	SS / IDIQ	NSWC Carderock	May 2017	Nov 2017	200	434.00	Y		Dec 2012
2.4) Electronic Personal Dosimeter		2016	Thermo Fisher Scientific / Franklin, MA	SS / IDDQ	NSWC Carderock	Jun 2016	Sep 2016	150	441.00	Y		Jul 2013
2.4) Electronic Personal Dosimeter		2017	Thermo Fisher Scientific / Franklin, MA	SS / IDIQ	NSWC Carderock	Mar 2017	Jun 2017	2,000	463.00	Y		Jul 2013
3) M2400 - Other RADIAC												
3.1) Criticality Monitor		2014	Canberra Industries / Oakridge, TN	C / FFP	NSWC Carderock	Jun 2015	Oct 2015	50	11,998.35	Y		Apr 2011
3.1) Criticality Monitor		2016	Canberra Industries / Oakridge, TN	C / FFP	NSWC Carderock	Dec 2015	Apr 2016	50	11,998.35	Y		Apr 2011
3.3) Tool Contamination Monitor, Shore		2014	Canberra Industries / Meriden, CT	SS / FFP	NSWC Carderock	Feb 2015	Sep 2015	7	87,285.71	Y		Aug 2014
3.3) Tool Contamination Monitor, Shore		2016	Canberra Industries / Meriden, CT	SS / FFP	NSWC Carderock	Dec 2015	Jun 2016	8	89,234.88	Y		Aug 2014
4) M2500 - Air Sampling Systems												
4.1) Air Particle Detector Ship Frames ⁽²⁾		2014	Puget Sound NSY / Bremerton, WA	WR	** NO PCO **	Nov 2013	Feb 2014	50	6,280.00	Y		
4.1) Air Particle Detector Ship Frames ⁽²⁾		2015	Puget Sound NSY / Bremerton, WA	WR	** NO PCO **	Oct 2014	Jan 2015	50	6,580.00	Y		
4.1) Air Particle Detector Ship Frames ⁽²⁾		2016	Puget Sound NSY / Bremerton, WA	WR	** NO PCO **	Oct 2015	Jan 2016	50	6,700.00	Y		
4.2) Air Particle Detector, Ship ⁽³⁾		2014	Leidos / San Diego, CA	C / FFP	NSWC Carderock	Sep 2014	Jul 2015	40	42,975.00	Y		Feb 2011
4.2) Air Particle Detector, Ship ⁽³⁾		2017	Leidos / San Diego, CA	SS / FFP	NSWC Carderock	Mar 2017	Jan 2018	40	56,778.30	Y		Feb 2011
4.6) Air Particle Detector, Shore		2014	Canberra Industries / Meriden, CT	C / FFP	NSWC Carderock	Mar 2015	Sep 2015	60	17,400.00	Y		Oct 2012
4.6) Air Particle Detector, Shore		2017	Canberra Industries / Meriden, CT	C / FFP	NSWC Carderock	Feb 2017	Aug 2017	20	18,000.00	Y		Oct 2012

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2920 / RADIAC	Aggregated Items: RADIAC
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
4.8) Air Particle Sampler		2015	Spectral Labs, Inc. / San Diego, CA	C / FFP	NSWC Carderock	Jul 2015	Jun 2016	200	1,227.43	Y		Jun 2014
4.8) Air Particle Sampler		2017	Spectral Labs, Inc. / San Diego, CA	C / FFP	NSWC Carderock	Jul 2017	Jun 2018	200	1,307.00	Y		Jun 2014
4.10) Tritium Monitor		2017	TBD / TBD	C / FFP	NSWC Carderock	Mar 2017	Sep 2017	50	20,000.00	Y		Mar 2016

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2925 / CANES Intell
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303138N
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Line Item MDAP/MAIS Code: M417	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	193.817	61.215	28.695	36.013	-	36.013	47.602	58.957	56.255	48.791	423.624	954.969
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	193.817	61.215	28.695	36.013	-	36.013	47.602	58.957	56.255	48.791	423.624	954.969
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	193.817	61.215	28.695	36.013	-	36.013	47.602	58.957	56.255	48.791	423.624	954.969

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Consolidated Afloat Networks & Enterprise Services (CANES) by \$1.9M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Consolidated Afloat Networks & Enterprise Services (CANES) is the Navy's only Program of Record to replace existing afloat networks and provide the necessary infrastructure for applications, systems, and services to dominate the cyber warfare domain. CANES is the technical and infrastructure consolidation of existing, separately managed afloat networks including Integrated Shipboard Network Systems (ISNS), Combined Enterprise Regional Information Exchange System - Maritime, Sensitive Compartmented Information (SCI) Networks, and Submarine Local Area Network. These legacy afloat network designs are currently End of Life and CANES will replace these unaffordable and obsolete networks.

The fundamental goal of CANES is to bring Infrastructure as a Service and Platform as a Service, within which current and future iterations of Navy Tactical Network computing and storage capabilities will reside. CANES will provide complete infrastructure inclusive of hardware, software, processing, storage, and end user devices for Unclassified, Coalition, Secret and SCI for all basic network services (email, web, chat, collaboration) to a wide variety of Navy surface combatants, submarines, Maritime Operations Centers (MOC), Regional Network Operations and Security Centers (RNOSC) and Aircraft. In addition, hosted applications and systems inclusive of Command and Control, Intelligence, Surveillance and Reconnaissance, Information Operations, Logistics and Business domains require the CANES infrastructure to operate in the tactical environment. Integrating these applications and systems is accomplished through application integration, the engineering process used to evaluate and validate compatibility between CANES and Navy-validated applications, systems and services that will utilize the CANES infrastructure and services. Specific programs, such as Distributed Common Ground System - Navy, Global Command and Control System - Maritime, Naval Tactical Command Support System, and Undersea Warfare Decision Support System, are dependent on the CANES common computing environment to field, host, and sustain their capability because they no longer provide their own hardware. CANES requires that Automated Digital Network System (ADNS) field prior to or concurrently with CANES due to architectural reliance between the two programs.

CANES will develop technical updates on a rolling four year hardware baseline and a two year software baseline to ensure no cyber security vulnerabilities exist due to hardware and software obsolescence. Fielding of CANES hardware and software baselines will be in alignment with the Chief of Naval Operation's Optimized Fleet Response Plan (OFRP). Technology refresh of existing CANES systems will be inclusive of both the latest CANES hardware and software baselines and will be executed on each ship no later than every six years. CANES is based on the overarching concept of reducing the number of afloat networks and providing enhanced efficiency through a single engineering focus on integrated technical solutions. This will allow for streamlined acquisition, contracting, and test events, and significant lifecycle efficiencies through consolidation of multiple current configuration management baselines, logistics, and training efforts into a unified support structure.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2925 / CANES Intell
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303138N
Line Item MDAP/MAIS Code: M417	Item MDAP/MAIS Code(s): N/A	
FY 2017 - CANES funds are for the procurement of (16) Afloat production units, (14) Technical Insertion units, and (1) Afloat First Article, with integration and associated costs for pre-installation design and the installation of (10) Afloat production units and (4) Technical Insertion units. This is 9 more Afloat productions units and 11 more Afloat Tech Insertions and associated cost then in FY2016.		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2925 / CANES Intell

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303138N
Line Item MDAP/MAIS Code: M417	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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / CANES Intell			- / 1.050	- / -	- / -	- / -	- / -	- / -
P-3a	1 / CANES-Afloat 5G010/5G777 MIP (TBD)			- / 188.553	- / 61.215	- / 28.425	- / 36.013	- / -	- / 36.013
P-3a	2 / CANES - Ashore 5G010/5G776 MIP (TBD)			- / 4.214	- / -	- / 0.270	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 193.817	- / 61.215	- / 28.695	- / 36.013	- / -	- / 36.013

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / CANES Intell			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / CANES-Afloat 5G010/5G777 MIP (TBD)			- / 44.843	- / 57.807	- / 53.640	- / 47.787	- / 402.203	- / 920.486
P-3a	2 / CANES - Ashore 5G010/5G776 MIP (TBD)			- / 2.759	- / 1.150	- / 2.615	- / 1.004	- / 21.421	- / 33.433
P-40	Total Gross/Weapon System Cost			- / 47.602	- / 58.957	- / 56.255	- / 48.791	- / 423.624	- / 954.969

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

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

Justification:
 FY 2017 - CANES funds are for the procurement of (16) Afloat production units, (14) Technical Insertion units, and (1) Afloat First Article, with integration and associated costs for pre-installation design and the installation of (10) Afloat production units and (4) Technical Insertion units.

It is important to note, procurement quantities across the FYDP are the same CANES end item product referenced in CANES LI 2915. Installation quantities represent sites receiving CANES as also referenced in LI 2915. The associated dollars in this exhibit represent the MIP portions of the CANES enclave.

Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed (ISNS Alpha/Charlie/Delta/Legacy), geographic location of the installation, and length of the availability. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same CVN had a legacy ATM LAN the CANES installation is estimated to be \$22.4M. The legacy LAN installation has the additional cost of rewiring all the drops, while the newer variants of ISNS allow for reuse of drops during the CANES installation.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Item Number / Title [DODIC]: 1 / CANES Intell

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1.050	-	-	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1.050	-	-	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1.050	-	-	-	-	-

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Non Recurring Cost																		
1.1.1) Cooperative Maritime Forces Pacific (CMFP)	-	-	1.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	1.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	1.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	1.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 1 / CANES-Afloat 5G010/5G777 MIP
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	188.553	61.215	28.425	36.013	-	36.013	44.843	57.807	53.640	47.787	402.203	920.486
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	188.553	61.215	28.425	36.013	-	36.013	44.843	57.807	53.640	47.787	402.203	920.486
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	188.553	61.215	28.425	36.013	-	36.013	44.843	57.807	53.640	47.787	402.203	920.486

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The consolidation of existing Afloat Network programs of record designed to provide an agile, responsive Common Computing Environment (CCE) and Afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services. Migration of Non-Classified Enclave (NCE) capabilities into the CANES baseline.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2925 / CANES Intell						Modification Number / Title: 1 / CANES-Afloat 5G010/5G777 MIP			
Models of Systems Affected: Consolidated Afloat Networks & Enterprise Services (CANES) MIP				Modification Type: TBD				Related RDT&E PEs: 0303238N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP</i>													
B Kits													
Recurring													
1.1.1) CANES - Afloat Production Units - MIP - NonOrganic ⁽¹⁾	45 / 100.337	23 / 32.773	7 / 5.652	16 / 11.942	- / -	16 / 11.942	22 / 18.367	11 / 9.275	20 / 16.496	15 / 10.838	10 / 9.235	169 / 214.915	
1.1.2) CANES Afloat Technical Insertion - MIP - NonOrganic ⁽²⁾	- / -	- / -	3 / 1.956	14 / 7.390	- / -	14 / 7.390	16 / 8.183	27 / 17.428	18 / 12.048	21 / 13.967	398 / 203.252	497 / 264.224	
<i>Subtotal: Recurring</i>	<i>- / 100.337</i>	<i>- / 32.773</i>	<i>- / 7.608</i>	<i>- / 19.332</i>	<i>- / -</i>	<i>- / 19.332</i>	<i>- / 26.550</i>	<i>- / 26.703</i>	<i>- / 28.544</i>	<i>- / 24.805</i>	<i>- / 212.487</i>	<i>- / 479.139</i>	
Non-Recurring													
1.2.1) CANES - Afloat First Articles - MIP - Organic ⁽³⁾	8 / 30.783	1 / 1.914	1 / 1.812	1 / 2.600	- / -	1 / 2.600	1 / 0.641	1 / 0.625	- / -	- / -	1 / 1.812	14 / 40.187	
1.2.2) CANES-Non-Recurring Engineering (MIP) - Organic	- / 4.732	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.732	
<i>Subtotal: Non-Recurring</i>	<i>- / 35.515</i>	<i>- / 1.914</i>	<i>- / 1.812</i>	<i>- / 2.600</i>	<i>- / -</i>	<i>- / 2.600</i>	<i>- / 0.641</i>	<i>- / 0.625</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.812</i>	<i>- / 44.919</i>	
<i>Subtotal: CANES-Afloat 5G010/5G777 MIP</i>	<i>53 / 135.852</i>	<i>24 / 34.687</i>	<i>11 / 9.420</i>	<i>31 / 21.932</i>	<i>- / -</i>	<i>31 / 21.932</i>	<i>39 / 27.191</i>	<i>39 / 27.328</i>	<i>38 / 28.544</i>	<i>36 / 24.805</i>	<i>409 / 214.299</i>	<i>680 / 524.058</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 135.852</i>	<i>- / 34.687</i>	<i>- / 9.420</i>	<i>- / 21.932</i>	<i>- / -</i>	<i>- / 21.932</i>	<i>- / 27.191</i>	<i>- / 27.328</i>	<i>- / 28.544</i>	<i>- / 24.805</i>	<i>- / 214.299</i>	<i>- / 524.058</i>	
Support (All Modification Items)													
2.1) CANES - Afloat Production Support (MIP)	- / 5.192	- / 1.725	- / 0.400	- / 1.018	- / -	- / 1.018	- / 1.397	- / 1.405	- / 1.502	- / 1.306	- / 11.184	- / 25.129	
2.2) CANES - Afloat Design Service Agent (MIP)	- / 7.159	- / 2.350	- / 0.721	- / 1.360	- / -	- / 1.360	- / 1.262	- / 1.470	- / 1.493	- / 1.002	- / 1.880	- / 18.697	
<i>Subtotal: Support</i>	<i>- / 12.351</i>	<i>- / 4.075</i>	<i>- / 1.121</i>	<i>- / 2.378</i>	<i>- / -</i>	<i>- / 2.378</i>	<i>- / 2.659</i>	<i>- / 2.875</i>	<i>- / 2.995</i>	<i>- / 2.308</i>	<i>- / 13.064</i>	<i>- / 43.826</i>	
Installation													
<i>Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP</i>	<i>- / 40.350</i>	<i>- / 22.453</i>	<i>- / 17.884</i>	<i>- / 11.703</i>	<i>- / -</i>	<i>- / 11.703</i>	<i>- / 14.993</i>	<i>- / 27.604</i>	<i>- / 22.101</i>	<i>- / 20.674</i>	<i>- / 174.840</i>	<i>- / 352.602</i>	
<i>Subtotal: Installation</i>	<i>- / 40.350</i>	<i>- / 22.453</i>	<i>- / 17.884</i>	<i>- / 11.703</i>	<i>- / -</i>	<i>- / 11.703</i>	<i>- / 14.993</i>	<i>- / 27.604</i>	<i>- / 22.101</i>	<i>- / 20.674</i>	<i>- / 174.840</i>	<i>- / 352.602</i>	
Total													
Total Cost (Procurement + Support + Installation)	188.553	61.215	28.425	36.013	-	36.013	44.843	57.807	53.640	47.787	402.203	920.486	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 1 / CANES-Afloat 5G010/5G777 MIP

Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP

Manufacturer Information

Manufacturer Name: Multiple Vendors ⁽⁴⁾ Manufacturer Location: Various

Administrative Leadtime (in Months): 1 Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Feb 2016	Nov 2016				
Delivery Dates	Oct 2015	Aug 2016	May 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Afloat Production Units - MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	34 / 40.350	11 / 19.519	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	45 / 59.869
FY 2015	- / -	5 / 2.934	18 / 15.417	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 18.351
FY 2016	- / -	- / -	1 / 2.467	6 / 6.142	- / -	6 / 6.142	- / -	- / -	- / -	- / -	- / -	7 / 8.609
FY 2017	- / -	- / -	- / -	4 / 2.853	- / -	4 / 2.853	12 / 10.141	- / -	- / -	- / -	- / -	16 / 12.994
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.843	18 / 14.018	- / -	- / -	- / -	22 / 15.861
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.362	10 / 9.775	- / -	- / -	11 / 12.137
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 4.192	13 / 9.683	- / -	20 / 13.875
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 3.627	10 / 7.043	15 / 10.670
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 7.044	10 / 7.044
Total	34 / 40.350	16 / 22.453	19 / 17.884	10 / 8.995	- / -	10 / 8.995	16 / 11.984	19 / 16.380	17 / 13.967	18 / 13.310	20 / 14.087	169 / 159.410

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	28	2	4	3	3	10	2	3	10	4	3	2	1	4	6	4	2	4	12	4	2	1	3	1	6	7	6	5	2	25	169
Out	22	6	-	3	4	3	7	4	4	6	8	4	3	1	4	3	7	2	4	11	2	4	2	3	1	6	6	5	6	28	169

Method of Implementation: [none specified]:: Installation Name: CANES Afloat Technical Insertion - MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 1 / CANES-Afloat 5G010/5G777 MIP

Modification Item 1 of 1: CANES-Afloat 5G010/5G777 MIP

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES Afloat Technical Insertion - MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	3 / 1.294	- / -	3 / 1.294	- / -	- / -	- / -	- / -	- / -	3 / 1.294
FY 2017	- / -	- / -	- / -	1 / 1.414	- / -	1 / 1.414	13 / 2.810	- / -	- / -	- / -	- / -	14 / 4.224
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.199	14 / 5.710	- / -	- / -	- / -	16 / 5.909
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 5.514	19 / 5.704	- / -	- / -	27 / 11.218
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 2.430	14 / 6.609	- / -	18 / 9.039
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.755	18 / 6.956	21 / 7.711
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	398 / 153.797	398 / 153.797
Total	- / -	- / -	- / -	4 / 2.708	- / -	4 / 2.708	15 / 3.009	22 / 11.224	23 / 8.134	17 / 7.364	416 / 160.753	497 / 193.192

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	2	1	-	1	7	1	5	2	7	2	5	8	12	5	2	4	4	7	3	419	497
Out	-	-	-	-	-	-	-	-	-	-	2	-	1	1	6	2	3	5	6	2	4	10	7	9	3	4	4	3	425	497

Method of Implementation (Organic): CANES - Afloat First Articles - MIP - Not Installed

Installation Quantity: 14

Footnotes:

(1) CANES Afloat production units require an additional 4 months after delivery for operational integration, assembly and testing prior to installation start. Installs do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total Lead Time, including admin lead time, is 11 months. -First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability. -Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platforms) has fewer users and runs fewer applications than a LHD/CVN (force level platforms). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems. -Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed (ISNS Alpha/Charlie/Delta/Legacy), geographic location of the installation, and length of the availability. As an example of variant differences, if a CVN has an ISNS Delta variant installed, a CANES installation is estimated to be \$18.2M. If that same CVN had a legacy ATM LAN the CANES installation is estimated to be \$22.4M. The legacy LAN installation has the additional cost of rewiring all the drops, while the newer variants of ISNS allow for reuse of drops during the CANES installation.

(2) CANES Afloat production units require an additional 4 months after delivery for operational integration, assembly and testing prior to installation start. Installs do not begin until 10 months after contract award (6 months production lead time (PLT) + 4 months integration). Total Lead Time, including admin lead time, is 11 months. -First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 1 / CANES-Afloat 5G010/5G777 MIP

⁽³⁾ First articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. First articles are separate from production units and must be bought prior to the procurement of the corresponding production units. Procurement Lead Time (PLT) is 8 months for First Articles (DDG,CVN, submarines, etc). All following production articles of the same variant require a PLT of 6 months. CANES First Articles are not installed. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. A DDG/CG/LSD (unit level platforms) has fewer users and runs fewer applications than a LHD/CVN/LPD (force level platforms). Force level platforms are larger in scale compared to the unit level ships and represent a super set of users, applications and connected systems. The FY15 and FY17 units are Unit Level procurements. The FY16 procurement is a force level system.

⁽⁴⁾ CANES: Full Production Contract has 7 possible vendors on MAC award: Northrop Grumman Systems Corp, BAE Sytems Technology Solutions & Services, General Dynamics C4 Systems, Global Technical Systems, SERCO, Inc, CGI Federal Inc, DRS Laurel Technologies. This contract will be used for both production and tech refresh units.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 2 / CANES - Ashore 5G010/5G776 MIP
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	4.214	-	0.270	-	-	-	2.759	1.150	2.615	1.004	21.421	33.433
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	4.214	-	0.270	-	-	-	2.759	1.150	2.615	1.004	21.421	33.433
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	4.214	-	0.270	-	-	-	2.759	1.150	2.615	1.004	21.421	33.433

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The consolidation of existing Ashore Network programs of record designed to provide an agile, responsive Common Computing Environment (CCE) and the eventual addition of Afloat Core Services (ACS) within and upon which application developers will host Command and Control, Warfare, Intelligence, Logistics, and business and education applications and services for Maritime Operation Command (MOC), Regional Network Operations and Security Centers (RNOSC) and Technical Training Equipment (TTE).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2925 / CANES Intell						Modification Number / Title: 2 / CANES - Ashore 5G010/5G776 MIP			
Models of Systems Affected: Consolidated Afloat Networks & Enterprise Services (CANES) MIP				Modification Type: TBD				Related RDT&E PEs: 0303238N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: CANES - Ashore 5G010/5G776 MIP</i>													
B Kits													
Recurring													
1.1.1) CANES-Ashore Production Units MIP - NonOrganic ⁽⁵⁾	2 / 0.497	- / -	1 / 0.139	- / -	- / -	- / -	2 / 1.255	1 / 0.654	2 / 1.353	1 / 0.576	- / -	9 / 4.474	
1.1.2) CANES - Ashore Technical Insertion - MIP - NonOrganic ⁽⁶⁾	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.367	- / -	1 / 0.198	- / -	27 / 5.615	30 / 6.180	
<i>Subtotal: Recurring</i>	- / 0.497	- / -	- / 0.139	- / -	- / -	- / -	- / 1.622	- / 0.654	- / 1.551	- / 0.576	- / 5.615	- / 10.654	
Non-Recurring													
1.2.1) CANES - Ashore First Articles - MIP - Organic ⁽⁷⁾	1 / 3.264	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.264	
<i>Subtotal: Non-Recurring</i>	- / 3.264	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.264	
<i>Subtotal: CANES - Ashore 5G010/5G776 MIP</i>	3 / 3.761	- / -	1 / 0.139	- / -	- / -	- / -	4 / 1.622	1 / 0.654	3 / 1.551	1 / 0.576	27 / 5.615	40 / 13.918	
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.761	- / -	- / 0.139	- / -	- / -	- / -	- / 1.622	- / 0.654	- / 1.551	- / 0.576	- / 5.615	- / 13.918	
Support (All Modification Items)													
2.1) CANES - Ashore Production Support (MIP)	- / 0.026	- / -	- / 0.007	- / -	- / -	- / -	- / 0.085	- / 0.034	- / 0.082	- / 0.030	- / 0.296	- / 0.560	
2.2) CANES - Ashore Design Service Agent (MIP)	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.062	- / 0.092	- / 0.067	- / 0.014	- / -	- / 0.235	
<i>Subtotal: Support</i>	- / 0.026	- / -	- / 0.007	- / -	- / -	- / -	- / 0.147	- / 0.126	- / 0.149	- / 0.044	- / 0.296	- / 0.795	
Installation													
<i>Modification Item 1 of 1: CANES - Ashore 5G010/5G776 MIP</i>	- / 0.427	- / -	- / 0.124	- / -	- / -	- / -	- / 0.990	- / 0.370	- / 0.915	- / 0.384	- / 15.510	- / 18.720	
<i>Subtotal: Installation</i>	- / 0.427	- / -	- / 0.124	- / -	- / -	- / -	- / 0.990	- / 0.370	- / 0.915	- / 0.384	- / 15.510	- / 18.720	
Total													
Total Cost (Procurement + Support + Installation)	4.214	-	0.270	-	-	-	2.759	1.150	2.615	1.004	21.421	33.433	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 2 / CANES - Ashore 5G010/5G776 MIP

Modification Item 1 of 1: CANES - Ashore 5G010/5G776 MIP

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement) ⁽⁸⁾				Manufacturer Location: TBD (Competitive Procurement)			
Administrative Leadtime (in Months): 5				Production Leadtime (in Months): 5			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Feb 2016					
Delivery Dates		Jul 2016					

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES-Ashore Production Units MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 0.427	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 0.427
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	1 / 0.124	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.124
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.702	- / -	- / -	- / -	- / -	2 / 0.702
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.370	- / -	- / -	- / -	1 / 0.370
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.759	- / -	- / -	2 / 0.759
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.384	- / -	1 / 0.384
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 0.427	- / -	1 / 0.124	- / -	- / -	- / -	2 / 0.702	1 / 0.370	2 / 0.759	1 / 0.384	- / -	9 / 2.766

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	2	-	-	-	1	-	9
Out	-	2	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	2	-	-	-	1	9

Method of Implementation: [none specified]:: Installation Name: CANES - Ashore Technical Insertion - MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2925 / CANES Intell	Modification Number / Title: 2 / CANES - Ashore 5G010/5G776 MIP
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Modification Item 1 of 1: CANES - Ashore 5G010/5G776 MIP

Installation Information

Method of Implementation: [none specified]:: Installation Name: CANES - Ashore Technical Insertion - MIP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.288	- / -	- / -	- / -	- / -	2 / 0.288
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.156	- / -	- / -	1 / 0.156
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 15.510	27 / 15.510
Total	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.288	- / -	1 / 0.156	- / -	27 / 15.510	30 / 15.954

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	-	27	30
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1	-	-	-	27	30

Method of Implementation (Organic): CANES - Ashore First Articles - MIP - Not Installed

Installation Quantity: 1

Footnotes:

⁽⁵⁾ - Ashore procurement quantities are detailed as follows: Technical Training Equipment (TTE) - FY15 (0), FY16 (1), FY17-FY21 (0); Maritime Operation Center (MOC) - FY15-FY17 (0), FY18 (2), FY19 (1), FY20 (2), FY21 (1). -A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years commensurate with the procurement quantities outlined in above note. -TTE has no associated DSA requirements.

⁽⁶⁾ -A MOC is a fully operational system configuration. A TTE configuration is a subset of a MOC configuration. This scale difference accounts for the fluctuation in per unit costs across fiscal years.

⁽⁷⁾ Production Lead Time is 8 months for First Articles. First Articles are defined as necessary production design drawings, environmental (shock and vibration) qualifications, logistics and training artifacts as well as a certified tested baseline provided to the government for each platform first of its kind. All following articles of the same variant require a Production Lead Time of 5 months for Ashore units and 6 months for afloat units. Total Ashore lead time, including 1 month Admin lead time, is 6 months. Ashore production lead times require one month less than Afloat production lead times due to the long lead time afloat production quality racks and minimized shock and vibration requirements for shore facilities. CANES First Articles are not installed.

⁽⁸⁾ FY 2016 Contractor and location will be completed.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2940 / Gen Purp Elec Test Equip (GPETE)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	13,355.302	6.284	6.962	6.428	-	6.428	6.850	7.000	7.149	7.293	41.682	13,444.950
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	13,355.302	6.284	6.962	6.428	-	6.428	6.850	7.000	7.149	7.293	41.682	13,444.950
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	13,355.302	6.284	6.962	6.428	-	6.428	6.850	7.000	7.149	7.293	41.682	13,444.950

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in GPETE by \$0.27M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

This program provides for the initial procurement and distribution of General Purpose Electronic Test Equipment (GPETE). This equipment is essential to the operational readiness of the Navy for repair, installation, and maintenance (preventive and routine) of electronic systems and equipments, both afloat and ashore. The GPETE procured must meet rigid technical requirements, be cost effective and satisfy valid deficiencies in authorized allowance.

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2940 / Gen Purp Elec Test Equip (GPETE)

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Gen Purp Elec Test Equip (GPETE)	P-5a		- / 13,355.302	- / 6.284	- / 6.962	- / 6.428	- / -	- / 6.428
P-40	Total Gross/Weapon System Cost			- / 13,355.302	- / 6.284	- / 6.962	- / 6.428	- / -	- / 6.428

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2940 / Gen Purp Elec Test Equip (GPETE) **Aggregated Items Title:** Gen Purp Elec Test Equip (GPETE)

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) M6000 FIBER OPTICS																				
1.1) FIBER OPTICS AND DATA COMM ^(†)	A		15,479.67	123	1.904	7,000.00	34	0.238	7,057.14	35	0.247	7,198.28	35	0.252	-	-	-	7,198.28	35	0.252
Subtotal: 1) M6000 FIBER OPTICS			-	-	1.904	-	-	0.238	-	-	0.247	-	-	0.252	-	-	-	-	-	0.252
2) M6001 SIGNAL GENERATORS																				
2.1) SIGNAL GENERATORS & ANALYZERS ^(†)	A		9,686.18	615	5.957	10,338.03	71	0.734	12,384.62	61	0.755	12,632.31	61	0.771	-	-	-	12,632.31	61	0.771
Subtotal: 2) M6001 SIGNAL GENERATORS			-	-	5.957	-	-	0.734	-	-	0.755	-	-	0.771	-	-	-	-	-	0.771
3) M6002 OSCILLSCPS, METERS																				
3.1) OSCILLSCPS, METERS&COUNTERS ^(†)	A		4,661.13	2,470	11.513	3,289.60	846	2.783	3,381.35	1,006	3.402	3,448.98	819	2.825	-	-	-	3,448.98	819	2.825
Subtotal: 3) M6002 OSCILLSCPS, METERS			-	-	11.513	-	-	2.783	-	-	3.402	-	-	2.825	-	-	-	-	-	2.825
4) M6003 PROC ENGR AND DOCUMENTATION																				
4.1) PROC ENG AND DOCUMENTATION	A		-	-	4.928	-	-	0.869	-	-	0.804	-	-	0.911	-	-	-	-	-	0.911
Subtotal: 4) M6003 PROC ENGR AND DOCUMENTATION			-	-	4.928	-	-	0.869	-	-	0.804	-	-	0.911	-	-	-	-	-	0.911
5) M6004 PASSIVE ANCILLARY AND MECHANICAL																				
5.1) PASSIVE ANCILLARY AND MECHANICAL ^(†)	A		12,955K	1,029	13,331.000	1,617.93	1,026	1.660	1,675.26	1,047	1.754	1,708.77	977	1.669	-	-	-	1,708.77	977	1.669
Subtotal: 5) M6004 PASSIVE ANCILLARY AND MECHANICAL			-	-	13,331.000	-	-	1.660	-	-	1.754	-	-	1.669	-	-	-	-	-	1.669
Total			-	-	13,355.302	-	-	6.284	-	-	6.962	-	-	6.428	-	-	-	-	-	6.428

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

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10			P-1 Line Item Number / Title: 2940 / Gen Purp Elec Test Equip (GPETE)					Aggregated Items: Gen Purp Elec Test Equip (GPETE)				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) M6000 FIBER OPTICS												
1.1) FIBER OPTICS AND DATA COMM		2012	NSWC / CHINA LAKE	WR	SEAL BEACH	Nov 2011	Mar 2012	30	10,000.00	Y		
1.1) FIBER OPTICS AND DATA COMM		2013	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2012	Mar 2013	29	10,000.00	Y		
1.1) FIBER OPTICS AND DATA COMM		2014	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2013	Mar 2014	34	6,882.35	Y		
1.1) FIBER OPTICS AND DATA COMM		2015	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2014	Mar 2015	34	7,000.00	Y		
1.1) FIBER OPTICS AND DATA COMM		2016	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2015	Mar 2016	35	7,057.14	Y		
1.1) FIBER OPTICS AND DATA COMM		2017	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2016	Mar 2017	35	7,198.28	Y		
2) M6001 SIGNAL GENERATORS												
2.1) SIGNAL GENERATORS & ANALYZERS		2012	NSWC / CHINA LAKE	WR	SEAL BEACH	Nov 2011	Mar 2012	186	16,000.00	Y		
2.1) SIGNAL GENERATORS & ANALYZERS		2013	NSWC / CHINA LAKE	WR	CHINA LAKE	Dec 2012	Apr 2013	171	16,000.00	Y		
2.1) SIGNAL GENERATORS & ANALYZERS		2014	NSWC / CHINA LAKE	WR	CHINA LAKE	Dec 2013	Apr 2014	72	10,166.67	Y		
2.1) SIGNAL GENERATORS & ANALYZERS		2015	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2014	Mar 2015	71	10,338.03	Y		
2.1) SIGNAL GENERATORS & ANALYZERS		2016	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2015	Mar 2016	61	12,384.62	Y		
2.1) SIGNAL GENERATORS & ANALYZERS		2017	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2016	Mar 2017	61	12,632.31	Y		
3) M6002 OSCILLSCPS, METERS												
3.1) OSCILLSCPS, METERS&COUNTERS		2012	NSWC / CHINA LAKE	WR	SEAL BEACH	Nov 2011	Mar 2012	545	4,000.00	Y		
3.1) OSCILLSCPS, METERS&COUNTERS		2013	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2012	Mar 2013	501	4,000.00	Y		
3.1) OSCILLSCPS, METERS&COUNTERS		2014	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2013	Mar 2014	851	3,235.02	Y		
3.1) OSCILLSCPS, METERS&COUNTERS		2015	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2014	Mar 2015	846	3,289.60	Y		
3.1) OSCILLSCPS, METERS&COUNTERS		2016	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2015	Mar 2016	1,006	3,381.35	Y		
3.1) OSCILLSCPS, METERS&COUNTERS		2017	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2016	Mar 2017	819	3,448.98	Y		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2940 / Gen Purp Elec Test Equip (GPETE)	Aggregated Items: Gen Purp Elec Test Equip (GPETE)
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
5) M6004 PASSIVE ANCILLARY AND MECHANICAL												
5.1) PASSIVE ANCILLARY AND MECHANICAL		2014	NSWC / CHINA LAKE	WR	SEAL BEACH	Nov 2013	Mar 2014	1,029	12,955.30	Y		
5.1) PASSIVE ANCILLARY AND MECHANICAL		2015	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2014	Mar 2015	1,026	1,617.93	Y		
5.1) PASSIVE ANCILLARY AND MECHANICAL		2016	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2015	Mar 2016	1,047	1,675.26	Y		
5.1) PASSIVE ANCILLARY AND MECHANICAL		2017	NSWC / CHINA LAKE	WR	CHINA LAKE	Nov 2016	Mar 2017	977	1,708.77	Y		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2950 / Network Tactical Common Data Link (CDL)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: 0205604N	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	0.290	-	-	-	0.051	21.384	20.279	21.193	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	0.290	-	-	-	0.051	21.384	20.279	21.193	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	0.290	-	-	-	0.051	21.384	20.279	21.193	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	0.935	0.933	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Network Tactical Common Data Link (NTCDL) provides network interface capability, wideband encryption, and command link upgrades to the Communication Data Link System (CDLS). Primarily, NTCDL provides multiple networked, simultaneous links, to support surface to air, air to surface, air to air, and surface to surface platform ISR communications, where CDLS is a single link, point to point, air to surface/ surface to air capability. It is designed to communicate with the Signals Intelligence Mission and the Distributed Common Ground Station - Navy. CDLS benefits the fleet by providing horizon extension for line-of-sight sensor systems for use in time critical strike missions and is interoperable with the FA-18 Shared Reconnaissance Pod, Tactical Common Data Link (TCDL) equipped P-3C and electronics EP-3E navy aircraft, United States Air Force Dual Data Link II equipped special aircraft, and Global Hawk High Altitude Endurance Unmanned Aerial Vehicle. The Video Interface Group kit is an additional workstation that provides streaming video display, record, and playback capability to support NTCDL Equipped Navy Aircraft. The current NTCDL program budget begins in FY19, and supports the fielding of NTCDL Increment 1 on surface platforms to include CG, DDG, LCS, CVN, LHA, LHD, LCC.

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2950 / Network Tactical Common Data Link (CDL)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** 0205604N **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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Network Tactical Common Data Link (CDL)	P-5a		- / 0.000	- / -	- / 0.290	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 0.000	- / -	- / 0.290	- / -	- / -	- / -

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy													Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10						P-1 Line Item Number / Title: 2950 / Network Tactical Common Data Link (CDL)						Aggregated Items Title: Network Tactical Common Data Link (CDL)						

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) Network Tactical Common Data Link (CDL)																				
1) LINK-16 Antennas ^(t)	A		-	-	-	-	-	-	145,000.00	2	0.290	-	-	-	-	-	-	-	-	-
Subtotal: 1) Network Tactical Common Data Link (CDL)			-	-	0.000	-	-	-	-	-	0.290	-	-	-	-	-	-	-	-	-
Total			-	-	0.000	-	-	-	-	-	0.290	-	-	-	-	-	-	-	-	-

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

(t) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2950 / Network Tactical Common Data Link (CDL)				Aggregated Items: Network Tactical Common Data Link (CDL)				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Network Tactical Common Data Link (CDL)												
1) LINK-16 Antennas		2016	Naval Surface Warfare Center Dahlgren / Dahlgren, Va	WR	Dahlgren	May 2016	Feb 2017	2	145,000.00	Y		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2960 / Integ Combat System Test Facility
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	17.916	4.016	14.419	8.376	-	8.376	8.948	9.168	9.365	9.569	-	81.777
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	17.916	4.016	14.419	8.376	-	8.376	8.948	9.168	9.365	9.569	-	81.777
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	17.916	4.016	14.419	8.376	-	8.376	8.948	9.168	9.365	9.569	-	81.777

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.622	0.498	0.195	-	0.195	0.583	0.659	0.685	0.722	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program supports various Navy Land Based Test Sites (LBTS) required to support integration and interoperability testing. Sites include, but are not limited to: Naval Surface Warfare Center (NSWC) Dahlgren, Surface Combat System Center (SCSC) Wallops Island, and NSWC Dam Neck.

The United States Navy has a requirement to fully test and certify computer programs for maturity, Interoperability and Integration (I&I) prior to delivery to the Fleet. Commander, U.S. Fleet Forces Command (CFFC) provided specific direction to develop a unified modernization process and certify all combat system baselines for integration and interoperability as an integral step in the CNO Optimized Fleet Response Plan (O-FRP). Various Navy facilities, serving as LBTS, conduct the required testing in support of CVN, DDG, CG, LHD, LHA, LPD17 and LSD class ships. These sites also comprise the Navy's Distributed Integration & Interoperability Assessment Capability (DIIAC) (supported through the use of JMETC network) alliance, which performs Interoperability Assessment and Systems Engineering Events (SEEs) for deploying Strike Groups.

These facilities also provide combat system in-service support to respond to emergent fleet problems. This capability tests and certifies new combat system baseline in a lab based environment, which has significantly reduced the cost of corrective action and shifted the burden of problem discovery away from the operator at sea. It also provides support to the acquisition community to conduct interoperability (shift to the left) testing earlier in the acquisition cycle.

As existing system experience parts obsolescence issues and tech refresh updates, the LBTS must procure and install existing test beds to accurately replicate the Command, Control, Communication, Computer, Combat System and Intelligence (C5I) configuration that are designed for the fleet. In addition, new combat systems architectures are under development for new ship classes such as LCS, CVN 78, DDG 1000, as well as new Open Architecture (OA) variants of legacy suites. Procurement of production representative systems of these OA combat systems being delivered to operational fleet units is critical to ensure that testing and subsequent certification of both current and newly installed combat systems is in accordance with NAVSEAINST 9410.2 Naval Warfare Systems Certification Policy (NWSCP) and the O-FRP Program.

The basic procurement outlined herein is directed at expanding various facilities capability to support Interoperability Integration and Stressful Endurance testing. Procurement requirements are directly tied to the interoperability testing schedule and establish independence between test beds allowing for parallel certification efforts. Procurements are required to build the necessary test beds and for laboratory support equipment. This budget procures lab support equipment that various facilities are able to support the new tactical subsystems that use COTS 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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2960 / Integ Combat System Test Facility
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	
<p>In addition, the basic program provides for equipment/upgrades for the Navy's Distributed Integration & Interoperability Assessment Capability (DIIAC) needed to conduct interoperability assessment testing. The DIIAC consists of 14 land based sites networked to certify computer programs prior to their delivery to the fleet and provides support to the acquisition community to conduct interoperability and integration (shift to the left) testing earlier in the acquisition cycle. Interoperability Assessment and Stressful Endurance testing is required for all deploying strike groups per the Joint Fleet Instruction.</p> <p>[P40A / M8400 - SESEF Electronic Equipment]: The Shipboard Electronic Systems Evaluation Facilities (SESEF) are Navy owned and operated test sites. The SESEF Program mission is to provide electromagnetic system tests and evaluations to afloat and shore commands for upgraded systems, to validate system performance following new construction and overhaul/availability, and to provide real-time assessment of material readiness in an operational environment. Also provided are: system modernization and integration, system and equipment component procurement and software (S/W) upgrades for test systems to include for Tactical Control and Navigation (TACAN), Antenna Radiation Pattern systems (ARP), IFF, Direction Finder (DF)/Radio Direction Finder (RDF), LINK 11/16, Electronic Warfare/Electronic Attack (EW/EA) and HF/VHF/UHF communication systems including secure voice. SESEFs have been used effectively to conduct TACAN certifications, support AN/SLQ-32 Electronic Warfare (EW) Planned Maintenance System (PMS), Ship Signals Exploitation Equipment (SSEE) and to detect and isolate shipboard system deficiencies leading to maintenance action to increase ship material readiness at the completion of construction, delivery availabilities, during routine ship operations, and prior to deployment.</p> <p>[P40A / M8500 - Interoperability Assessment Equipment]: M8500 - INTEROPERABILITY ASSESSMENT EQUIPMENT KNOWN AS DISTRIBUTED INTEGRATION & INTEROPERABILITY ASSESSMENT CAPABILITY (DIIAC) Procures upgrades to support the 14 sites that comprise the Navys DIIAC sites. Procures hardware that provides the DIIAC Operations Center (DOC) the ability to support monitoring and execution of events providing data collection and distribution. Funds are also allocated for site upgrades to meet current standards and allow scalability for DIIAC requirements. In addition, to enable the DIIAC to maintain efficiency and product improvement to interface with other Joint communities using Joint Mission Environment Test Community (JMETC) network.</p>		

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2960 / Integ Combat System Test Facility

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	ICSTF Program			- / 17.916	- / 4.016	- / 14.419	- / 8.376	- / -	- / 8.376
P-40	Total Gross/Weapon System Cost			- / 17.916	- / 4.016	- / 14.419	- / 8.376	- / -	- / 8.376

*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:
 Funding supports procurements and installations for the modernization of the eight operational sites across the AORs to support the surface fleet spectrum requirements. FY17 and follow on funding requirements are to maintain the upgrades conducted in FY16 and the addition of the 8th site.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2960 / Integ Combat System Test Facility **Aggregated Items Title:** ICSTF Program

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) M8400 - SESEF Electronic Equipment																				
1.1) SESEF Electronic Equipment ⁽¹⁾	A		-	-	12.962	-	-	0.833	-	-	10.806	-	-	4.998	-	-	-	-	-	4.998
Subtotal: 1) M8400 - SESEF Electronic Equipment			-	-	12.962	-	-	0.833	-	-	10.806	-	-	4.998	-	-	-	-	-	4.998
2) M8500 - Interoperability Assessment Equipment																				
2.1) Interoperability Assessment Equipment	A		-	-	4.954	-	-	3.183	-	-	3.613	-	-	3.378	-	-	-	-	-	3.378
Subtotal: 2) M8500 - Interoperability Assessment Equipment			-	-	4.954	-	-	3.183	-	-	3.613	-	-	3.378	-	-	-	-	-	3.378
Total			-	-	17.916	-	-	4.016	-	-	14.419	-	-	8.376	-	-	-	-	-	8.376

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

Footnotes:

⁽¹⁾ The SESEF program funding increased in FY16 for site upgrades for procurement and installation of Ship's Signals Exploitation Equipment (SSEE) and Electronic Warfare (EW) Radar and EW Threat Simulation equipment. FY16 also funded the 8th SESEF site to meet PACFLT emergent threats. These efforts will continue over the next several years in order to continue modernization of the eight operational facilities.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2970 / EMI Control Instrumentation
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	128.079	4.113	4.175	3.971	-	3.971	4.162	4.286	4.394	4.486	-	157.666
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	128.079	4.113	4.175	3.971	-	3.971	4.162	4.286	4.394	4.486	-	157.666
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	128.079	4.113	4.175	3.971	-	3.971	4.162	4.286	4.394	4.486	-	157.666

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Electromagnetic Interference (EMI) Control Instrumentation Program is fully aligned with the CNO's Sailing Directions. This program supports all three of CNO's main tenets (Warfighting First, Operate Forward and Be Ready). The EMI Control Instrumentation Program is supported by OPNAV N2N6, OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98. The EMI Control Instrumentation Program provides Cradle to Grave Systems Engineering for Mission Assurance by implementing Electromagnetic Compatibility (EMC) hardware solutions, Spectrum Management (SM) software solutions, and by procuring specialized test equipment used in the characterization/quantification of EMI problems aboard US Navy platforms. This ensures equipment, systems, and platforms meet their Operational Mission Requirements and goals within their intended operational Electromagnetic (EM) environment.

MA004 - EMI (HARDWARE) FIXES: Procurement and installation of Electromagnetic Interference (EMI) Hardware Solutions (i.e. Fixes) will achieve Electromagnetic Compatibility (EMC) among and between shipboard electronic/electric systems and/or equipment. This will be accomplished by determining the optimal EMI fix hardware, evaluating the effectiveness of the EMI solution, then procuring and installing the required hardware with full integrated logistic support (ILS) as part of the system hardware (ECP, OA, FC, etc). The fixes may include various types of radio frequency (RF) filters, limiters, blankers, radar absorbing material (RAM) and shielding methods. MA004 - EMI (Hardware) Fixes is supported by OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98.

MA104 - EMI (SOFTWARE) FIXES: Procurement and installation of EMI Software Fixes for platform/strike group/Area of Operation. These specific spectrum procedures (software application capabilities) and frequency management techniques (software modules) will be used to eliminate and reduce EMI when hardware solutions are unacceptable. Funds will also be used to provide engineering support to the enhancement of spectrum software applications through the procurement of models and other capabilities, including ILS for software tools/utilities/applications that correct/mitigate operational EMI. MA104 - EMI (Software) Fixes are supported by OPNAV N95, OPNAV N96, OPNAV N97 and OPNAV N98.

MA204 - EMI CONTROL INSTRUMENTATION: EMI Control Instrumentation will procure specialized test equipment used in the characterization and quantification of EMI problems aboard US Navy platforms. In addition, instrumentation will be procured for use in identifying the sources of EMI and determining the extent of EMI so that effective corrective measures can be applied. The instrumentation procured will include automated and special EMI test equipment (e.g., for spectrum analysis, mapping field intensities, etc.). EMI Control Instrumentation can include both hardware and software products that will enhance or streamline data collection efforts, including the ability to provide remote access capability. MA204 - EMI CONTROL INSTRUMENTATION are supported by OPNAV N2N6.

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2970 / EMI Control Instrumentation

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	EMI Control Instrumentation			- / 128.079	- / 4.113	- / 4.175	- / 3.971	- / -	- / 3.971
P-40	Total Gross/Weapon System Cost			- / 128.079	- / 4.113	- / 4.175	- / 3.971	- / -	- / 3.971

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10 **P-1 Line Item Number / Title:** 2970 / EMI Control Instrumentation **Aggregated Items Title:** EMI Control Instrumentation

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) MA004 EMI (HARDWARE) FIXES																				
1.1) MA004 EMI (HARDWARE) Fixes - N2N6	A		-	-	65.730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1.2) MA004 EMI (HARDWARE) FIXES - N96	A		-	-	3.298	-	-	0.804	-	-	0.829	-	-	0.787	-	-	-	-	0.787	
1.3) MA004 EMI (HARDWARE) FIXES - N95	A		-	-	2.275	-	-	0.573	-	-	0.577	-	-	0.547	-	-	-	-	0.547	
1.4) MA004 EMI (HARDWARE) FIXES - N97	A		-	-	2.368	-	-	0.592	-	-	0.596	-	-	0.566	-	-	-	-	0.566	
1.5) MA004 EMI (HARDWARE) FIXES N98	A		-	-	3.532	-	-	0.522	-	-	0.534	-	-	0.515	-	-	-	-	0.515	
Subtotal: 1) MA004 EMI (HARDWARE) FIXES			-	-	77.203	-	-	2.491	-	-	2.536	-	-	2.415	-	-	-	-	2.415	
2) MA104 EMI (SOFTWARE) FIXES																				
2.1) MA104 EMI (SOFTWARE) FIXES - N95	A		-	-	3.364	-	-	0.245	-	-	0.248	-	-	0.234	-	-	-	-	0.234	
2.2) MA104 EMI (SOFTWARE) FIXES - N96	A		-	-	5.020	-	-	0.344	-	-	0.355	-	-	0.337	-	-	-	-	0.337	
2.3) MA104 EMI (SOFTWARE) FIXES - N97	A		-	-	3.601	-	-	0.254	-	-	0.255	-	-	0.242	-	-	-	-	0.242	
2.4) MA104 EMI (SOFTWARE) FIXES - N98	A		-	-	5.391	-	-	0.224	-	-	0.229	-	-	0.221	-	-	-	-	0.221	
2.5) MA104 EMI (SOFTWARE) FIXES - N2N6	A		-	-	33.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 2) MA104 EMI (SOFTWARE) FIXES			-	-	50.876	-	-	1.067	-	-	1.087	-	-	1.034	-	-	-	-	1.034	
3) MA204 EMI CONTROL INSTRUMENTATION																				
3.1) MA204 EMI CONTROL INSTRUMENTATION - N2N6	A		-	-	-	-	-	0.555	-	-	0.552	-	-	0.522	-	-	-	-	0.522	
Subtotal: 3) MA204 EMI CONTROL INSTRUMENTATION			-	-	0.000	-	-	0.555	-	-	0.552	-	-	0.522	-	-	-	-	0.522	
Total			-	-	128.079	-	-	4.113	-	-	4.175	-	-	3.971	-	-	-	-	3.971	

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

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2970 / EMI Control Instrumentation	Aggregated Items Title: EMI Control Instrumentation
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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	359.992	64.235	66.176	58.721	-	58.721	100.093	64.719	60.773	60.713	401.907	1,237.329
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	359.992	64.235	66.176	58.721	-	58.721	100.093	64.719	60.773	60.713	401.907	1,237.329
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	359.992	64.235	66.176	58.721	-	58.721	100.093	64.719	60.773	60.713	401.907	1,237.329

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.351	1.348	0.598	-	0.598	0.429	0.295	0.380	-	-	4.401
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$6 million to account for the availability of prior year execution balances.

Decrease in Items Less Than \$5 Million by \$2.47M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The budget increase for Dual Band Radar from FY 2016 to FY 2017 is required to establish the In-Service Engineering Agent (ISEA), Original Equipment Manufacturer (OEM) production services and support for Configuration Management. Funding also implements the DBR Life Cycle Sustainment Plan (LCSP) and infrastructure, Diminishing Manufacturing Sources and Material Shortages (DMSMS) Plan, associated hardware and software obsolescence mod kits, procurement of Engineering Change Proposals (ECPs), associated logistics products and on-board allowance requirements to enable system operation. Production Support is also required to assist with DBR Combat System Integration and Technical Documentation. Additionally, as a result of DBR land based testing at the Wallops Island Engineering Test Center (WIETC) in FY15, limitations were identified in the Dual Band Radar (DBR) performance that directly impacted CVN 78 and DDG 1000 class readiness. These limitations require ECPs to correct the performance areas of the radar for Air Traffic Control and Integrated Combat Systems (e.g., False Clutter Tracks, Short Range Tracking, General Tracking, Slow Air Tracking, Waveform Scheduling, and code stability). The Prime Contractor and Government Technical Team have documented critical radar issues that require correction via ECPs in FY17-FY21. Funding for these ECP efforts increases in FY17 due to the engineering and technical complexity of the change proposal needed to satisfy combat system qualification requirements.

[P40A / DC004 CALIBRATION STANDARDS]: These funds procure calibration equipment for intermediate and organizational maintenance levels. Test And Monitoring Systems (TAMS), which include test equipment and gauges, must be calibrated to ensure the equipment is operational, accurate and precise. Funds are used to procure Calibration Standards. Calibration Standards are equipments which ensure the accuracy of test equipment used to install, align, and maintain all navy weapons systems shore and afloat. Intermediate Maintenance Activities (IMA) mechanical standards programs provide various new and replacement calibration equipment for instrument repair and calibration shops aboard tenders and shore based intermediate maintenance activities. The shipboard gauge calibration program provides the organization maintenance level aboard ship with portable calibration equipment to provide calibration support in only specific areas of measurement. Integrated Condition Assessment System (ICAS) is a Non-Developmental Item (NDI) (Commercial-Off-The-Shelf (COTS) equipment) computer-based system that provides real-time, on-line machinery condition monitoring and failure detection, diagnosis, trending for failure prognosis and expert troubleshooting capability. ICAS is linked through data networks to other critical ship systems, such as machinery control, damage control and bridge systems to receive necessary sensory information.

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2980 / Items less than \$5 Million
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	
<p>[P40A / DC019 RADAR RESTORATION AN/SPS-67 ANTENNA]: Funding in this line establishes an antenna manufacturing capability at Naval Surface Warfare Center (NSWC) Crane needed to provide additional rotatable pool antennas and associated engineering changes for the AN/SPS-67(V)3 to support the restoration of installed fleet antennas. The current number of available antennas is insufficient to support the fleet population. This has led to antennas operating in the field beyond their periodicity, resulting in decreased detection and tracking capability.</p> <p>[P40A / DC020 DUAL BAND RADAR (DBR)]: Funding is required to establish the In-Service Engineering Agent (ISEA), Original Equipment Manufacturer (OEM) production services and support for Configuration Management. Funding also implements the DBR Life Cycle Sustainment Plan (LCSP) and infrastructure, Diminishing Manufacturing Sources and Material Shortages (DMSMS) Plan, associated hardware and software obsolescence mod kits, procurement of Engineering Change Proposals (ECPs), associated logistics products and on-board allowance requirements to enable system operation. Production Support is also required to assist with DBR Combat System Integration and Technical Documentation. Additionally, as a result of DBR land based testing at the Wallops Island Engineering Test Center (WIETC) in FY15, limitations were identified in the Dual Band Radar (DBR) performance that directly impacted CVN 78 and DDG 1000 class readiness. These limitations require ECPs to correct the performance areas of the radar for Air Traffic Control and Integrated Combat Systems (e.g., False Clutter Tracks, Short Range Tracking, General Tracking, Slow Air Tracking, Waveform Scheduling, and code stability). The Prime Contractor and Government Technical Team have documented critical radar issues that require correction via ECPs in FY17-FY21. Funding for these ECP efforts increases in FY17 due to the engineering and technical complexity of the change proposal needed to satisfy combat system qualification requirements.</p> <p>[P40A / DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)]: The Maritime Radar Processor (MRP) was developed to improve the detection of small boats/targets by USN ships. Funding in this line will be used to integrate and field small boat detection software improvements to AN/SPS-67(V)5 Surface Search Radar.</p> <p>[P40A / Red Falcon (OCO)]: FY15 OCO funds required for the procurement of the Red Falcon V(2) system upgrade kits and accompanying antennas to exploit additional Signals of Interest (SOI).</p> <p>[P3A / DC001 - SPS-73 RADAR]: The AN/SPS-73(V) Radar provides primary navigation and surface search radar functionality on all U.S. Navy ships. All radars were procured with prior year Congressional Plus Up funding and are awaiting installation. The AN/SPS-73(V)12 is the Program of Record (POR) replacement for the legacy, unsupported, and non-POR navigation/surface search radars (LN-66, AN/SPS-55/64, and Bridgemaster (BME)). Funding in this line completes technology refresh, providing design for an Engineering Change Proposal (ECP) (Field Change (F/C) 13 to the AN/SPS-73(V)12) that addresses Commercial-Off-The-Shelf (COTS) obsolescence and incorporates expanded requirements, as well as recommended fleet enhancements to ensure safety of operations. Funding is provided for procurement for the replacement (with AN/SPS-73(V)12 F/C 13) of the LPD 17 non-POR AN/SPS-73(V)13 radars which is procured as Contractor Furnished Equipment for the LPD 17 class. Funding is also required to procure and install a Next Generation Navigation Replacement Radar. The Next Generation Navigation Replacement Radar will replace the current POR AN/SPS-73(V)12 due to COTS obsolescence. FY15, FY16, and FY17 funding will be utilized for non-recurring engineering cost for the Next Generation Navigation Replacement Radar.</p> <p>[P3A - 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)]: The AN/SPS-48G 3-D Air Surveillance Radar is a follow-on to the existing AN/SPS-48E onboard Aircraft Carriers and large-deck Amphibious ships. AN/SPS-48G was initiated in response to Fleet complaints regarding AN/SPS-48E reliability and supportability. Upgrade of the AN/SPS-48E with the AN/SPS-48G remains a high Fleet priority as it will reduce Operation and Support (O&S) costs and improve Operational Availability. Both factors are cited by the Fleet as unsatisfactory for the AN/SPS-48E. The goal is to replace the AN/SPS-48E as rapidly as possible so the Fleet can realize these cost savings. Current efforts include the manufacturing of the AN/SPS-48G upgrade kits with associated production support as well as modifications to the AN/SPS-48G brought about by initial Fleet introduction and Fleet operations. Production lead time is 24 months for the initial unit with subsequent units delivered at two month intervals after initial delivery. Equipment delivery for installation is required thirty days prior to FMP availability start in accordance with Navy Modernization Process Management. Engineering Change Order funding is included to address Fleet recommended modifications/ requirements and Information Assurance, Obsolescence, and Diminishing Manufacturing Sources (DMS) issues. FY13 and beyond Engineering Change Proposal funding is to initiate incorporation of High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change now needs to be translated into the different hardware and software architectures of the AN/SPS-48G.</p> <p>[P3A - 3 / DC010 - AN/SPS-49 IN-SERVICE RADARS]: This funding continues and executes efforts funded under the Radar Improvement Program. This program addresses already realized obsolescence, cost, reliability and maintainability issues raised by the fleet for the AN/SPS-49(V) air search radar, initially introduced in the Navy in the 1970's. These funds support the completion of the AN/SPS-49 Solid State Modulator (SSM) program and provide funding to begin addressing serious obsolescence issues throughout the radar including already obsolete Circuit Card Assemblies (CCAs) and other electrical components, and ongoing reliability problems in the transmitter.</p>		

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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 02: Communications & Electronics Equip / BSA 10: Other Shore Electronic Equipment		P-1 Line Item Number / Title: 2980 / Items less than \$5 Million
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	
<p>[P3A - 4 / DC012 - AN/SPS-74(V) PERISCOPE DETECTION RADAR (PDR)]: AN/SPS-74(V) PERISCOPE DETECTION RADAR (PDR): The CVN Periscope Detection Radar (PDR), AN/SPS-74(V) is a radar that provides automatic detection and discrimination of submarine periscopes using advanced algorithms enabling discrimination of periscopes from surface contacts, buoys, small boats, floating mines, etc. Four Advanced Development Models (ADMs) have been installed and are operating on CVN class ships. The AN/SPS-74 program was cancelled in FY12. FY14 and out funds will be used for Engineering Change Proposals (ECPs) to address obsolescence issues, sustainment, and continued operation of installed AN/SPS-74 ADMs as well as eventual de-installation.</p> <p>[P3A - 5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)]: Provides real-time valunumeric wind profiles, convective weather detection/display, and radar refractivity assessments from AN/SPY-1 radar returns. TEP will be an adjunct processor and display, tapping radar data from weather and refractivity data, with users able to access information through Secret Internet Protocol Router (SIPR). TEP installations began in FY13, are aligned with AEGIS Modernization in FY14 and will continue beyond the FYDP.</p> <p>[P3A - 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS]: DC018 AN/SPY-1 RM&A IMPROVEMENTS - These Reliability, Maintainability, and Availability (RM&A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions while still providing AN/SPY-1 Radar Total Ownership Cost (TOC) reductions. The improvements include, but are not limited to, installation for Sidewall Capacitor Circuit Protection and 10kW Traveling Wave Tube (TWT) Monitoring Circuits Ordnance Alterations (ORDALTS) starting in FY13 and Water Cooled Vane (WCV) to Double Duty (DD) conversion kits starting in FY16. AN/SPY-1 Pack Up Kits (PUKs) consist of long lead and high failure parts procured in FY14, then provided to and managed by Regional Maintenance Centers (RMCs). Solid State Switch Assembles (SSSA) will be procured beginning in FY15 through replacement of legacy switch tube modulator deck ORDALT. FY18 includes funding for shock qualification testing of the SSSA and SPY-1D(V) Final Power Amplifier (FPA) cabinet required by MILSPEC 901-D.</p>		

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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 02: Communications & Electronics Equip /
 BSA 10: Other Shore Electronic Equipment **P-1 Line Item Number / Title:**
 2980 / Items less than \$5 Million

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Items less than \$5 Million	P-5a		- / 50.669	- / 17.696	- / 15.742	- / 23.042	- / -	- / 23.042
P-3a	1 / DC001 - SPS-73 RADAR (TBD)			- / 46.280	- / 2.619	- / 4.733	- / 2.035	- / -	- / 2.035
P-3a	2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) (TBD)			- / 225.672	- / 29.179	- / 27.197	- / 13.341	- / -	- / 13.341
P-3a	3 / DC010 - AN/SPS-49 IN-SERVICE RADARS (TBD)			- / 20.180	- / -	- / -	- / -	- / -	- / -
P-3a	5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) (TBD)			- / 5.199	- / 0.214	- / 0.995	- / 1.293	- / -	- / 1.293
P-3a	6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS (TBD)			- / 11.992	- / 14.527	- / 17.509	- / 19.010	- / -	- / 19.010
P-40	Total Gross/Weapon System Cost			- / 359.992	- / 64.235	- / 66.176	- / 58.721	- / -	- / 58.721

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Items less than \$5 Million	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / DC001 - SPS-73 RADAR (TBD)			- / 1.387	- / 5.848	- / 4.951	- / 5.061	- / 182.370	- / 255.284
P-3a	2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR) (TBD)			- / 39.298	- / 10.459	- / 7.227	- / 3.254	- / -	- / 355.627
P-3a	3 / DC010 - AN/SPS-49 IN-SERVICE RADARS (TBD)			- / -	- / -	- / -	- / -	- / -	- / 20.180
P-3a	5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP) (TBD)			- / 1.484	- / 1.469	- / 1.489	- / 1.517	- / 13.497	- / 27.157
P-3a	6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS (TBD)			- / 36.648	- / 26.377	- / 26.278	- / 29.647	- / 182.296	- / 364.284
P-40	Total Gross/Weapon System Cost			- / 100.093	- / 64.719	- / 60.773	- / 60.713	- / 401.907	- / 1,237.329

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10						P-1 Line Item Number / Title: 2980 / Items less than \$5 Million						Aggregated Items Title: Items less than \$5 Million								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) DC001 SPS-73 RADAR																				
1.1) TECH REFRESH (1)(f)	A		185,806.20	129	23.969	-	-	3.065	-	-	2.073	-	-	1.429	-	-	-	-	-	1.429
Subtotal: 1) DC001 SPS-73 RADAR			-	-	23.969	-	-	3.065	-	-	2.073	-	-	1.429	-	-	-	-	-	1.429
2) DC004 CALIBRATION STANDARDS																				
2.1) CALIBRATION STANDARDS ^(f)	A		46,209.81	367	16.959	14,503.73	268	3.887	23,440.79	152	3.563	51,984.38	64	3.327	-	-	-	51,984.38	64	3.327
Subtotal: 2) DC004 CALIBRATION STANDARDS			-	-	16.959	-	-	3.887	-	-	3.563	-	-	3.327	-	-	-	-	-	3.327
3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA																				
3.1) HARDWARE ^(f)	A		495,000.00	2	0.990	491,500.00	2	0.983	492,000.00	1	0.492	-	-	-	-	-	-	-	-	-
3.2) OTHER	A		-	-	1.608	-	-	0.108	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA			-	-	2.598	-	-	1.091	-	-	0.492	-	-	-	-	-	-	-	-	-
4) DC020 DUAL BAND RADAR (DBR)																				
4.1) DBR PRODUCTION SUPPORT	A		-	-	2.853	-	-	0.724	-	-	0.394	-	-	3.859	-	-	-	-	-	3.859
4.2) DBR ENGINEERING CHANGE PROPOSALS (ECPS)	A		-	-	0.410	-	-	2.363	-	-	8.528	-	-	13.775	-	-	-	-	-	13.775
Subtotal: 4) DC020 DUAL BAND RADAR (DBR)			-	-	3.263	-	-	3.087	-	-	8.922	-	-	17.634	-	-	-	-	-	17.634
5) DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)																				
5.1) AN/SPS-67(V)5 MARITIME RADAR PROCESSOR ⁽²⁾	A		-	-	2.922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 5) DC021 AN/SPS-67(V)5 MARITIME RADAR PROCESSOR (MRP)			-	-	2.922	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6) DC012 AN/SPS-74(V) PERISCOPE DETECTION RADAR																				
6.1) PRODUCTION SUPPORT	A		-	-	0.958	-	-	0.696	-	-	0.692	-	-	0.652	-	-	-	-	-	0.652
Subtotal: 6) DC012 AN/SPS-74(V) PERISCOPE DETECTION RADAR			-	-	0.958	-	-	0.696	-	-	0.692	-	-	0.652	-	-	-	-	-	0.652
7) Red Falcon (OCO)																				
7.1) Red Falcon (OCO) ⁽³⁾	A		-	-	-	-	-	5.870	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 7) Red Falcon (OCO)			-	-	0.000	-	-	5.870	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	50.669	-	-	17.696	-	-	15.742	-	-	23.042	-	-	-	-	-	23.042

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Aggregated Items Title: Items less than \$5 Million

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

(†) indicates the presence of a P-5a

Footnotes:

(1) The program completed procurement of AN/SPS-73 Tech Refresh kits in FY14 for all remaining previously procured AN/SPS-73 Radars. FY15 through FY17 funding will be utilized to support and complete AN/SPS-73 Tech Refresh installations, based on a 12 month production lead time and shifts in CNO availabilities for the remaining ships.

(2) AN/SPS-67 MRP systems are no longer being procured due to performance shortfalls identified during testing.

(3) FY15 OCO funds required for the procurement of the Red Falcon V(2) system upgrade kits and accompanying antennas to exploit additional Signals of Interest (SOI).

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10			P-1 Line Item Number / Title: 2980 / Items less than \$5 Million					Aggregated Items: Items less than \$5 Million				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) DC001 SPS-73 RADAR												
1.1) TECH REFRESH ⁽¹⁾		2014	Raytheon / Portsmouth, RI	SS / FFP	NSWC CRANE	Oct 2014	Oct 2015	23	254,217.39	Y		Jan 2014
2) DC004 CALIBRATION STANDARDS												
2.1) CALIBRATION STANDARDS		2015	VARIOUS / VARIOUS	Various	WASHINGTON NAVY YARD	Nov 2014	Mar 2015	268	14,503.73	Y		
2.1) CALIBRATION STANDARDS		2016	VARIOUS / VARIOUS	Various	WASHINGTON NAVY YARD	Nov 2015	Mar 2016	152	23,440.79	Y		
2.1) CALIBRATION STANDARDS		2017	VARIOUS / VARIOUS	Various	WASHINGTON NAVY YARD	Nov 2016	Mar 2017	64	51,984.38	Y		
3) DC019 RADAR RESTORATION AN/SPS-67 ANTENNA												
3.1) HARDWARE		2014	NSWC CRANE / CRANE, IN	WR	NSWC CRANE	Apr 2014	Apr 2016	2	495,000.00	Y		
3.1) HARDWARE		2015	NSWC CRANE / CRANE, IN	WR	NSWC CRANE	May 2015	May 2017	2	491,500.00	Y		
3.1) HARDWARE		2016	NSWC CRANE / CRANE, IN	WR	NSWC CRANE	Apr 2016	Apr 2018	1	492,000.00	Y		

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million						Modification Number / Title: 1 / DC001 - SPS-73 RADAR		

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	46.280	2.619	4.733	2.035	-	2.035	1.387	5.848	4.951	5.061	182.370	255.284
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	46.280	2.619	4.733	2.035	-	2.035	1.387	5.848	4.951	5.061	182.370	255.284
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	46.280	2.619	4.733	2.035	-	2.035	1.387	5.848	4.951	5.061	182.370	255.284

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/SPS-73(V) Radar provides primary navigation and surface search radar functionality on all U.S. Navy ships. All radars were procured with prior year Congressional Plus Up funding and are awaiting installation. The AN/SPS-73(V)12 is the Program of Record (POR) replacement for the legacy, unsupported, and non-POR navigation/surface search radars (LN-66, AN/SPS-55/64, and Bridgemaster (BME)). Funding in this line completes technology refresh, providing design for an Engineering Change Proposal (ECP) (Field Change (F/C) 13 to the AN/SPS-73(V)12) that addresses Commercial-Off-The-Shelf (COTS) obsolescence and incorporates expanded requirements, as well as recommended fleet enhancements to ensure safety of operations. Funding is provided for procurement for the replacement (with AN/SPS-73(V)12 F/C 13) of the LPD 17 non-POR AN/SPS-73(V)13 radars which is procured as Contractor Furnished Equipment for the LPD 17 class. Funding is also required to procure and install a Next Generation Navigation Replacement Radar. The Next Generation Navigation Replacement Radar will replace the current POR AN/SPS-73(V)12 due to COTS obsolescence. FY15, FY16, and FY17 funding will be utilized for non-recurring engineering cost for the Next Generation Navigation Replacement Radar.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2980 / Items less than \$5 Million					Modification Number / Title: 1 / DC001 - SPS-73 RADAR			
Models of Systems Affected: AN/SPS-73				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> DC001 - SPS-73 RADAR													
B Kits													
Recurring													
1.1.1) SPS-73 SYSTEMS - NonOrganic ⁽⁴⁾	79 / 18.452	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	79 / 18.452	
1.1.2) NEXT GENERATION NON RECURRING ENGINEERING - Organic	- / -	- / 1.717	- / 4.076	- / 0.801	- / -	- / 0.801	- / -	- / -	- / -	- / -	- / -	- / 6.594	
1.1.3) NEXT GENERATION NAVIGATION RADAR - NonOrganic ⁽⁵⁾	- / -	- / -	- / -	2 / 0.204	- / -	2 / 0.204	2 / 0.208	6 / 0.636	6 / 0.756	6 / 0.880	158 / 29.273	180 / 31.957	
<i>Subtotal: Recurring</i>	- / 18.452	- / 1.717	- / 4.076	- / 1.005	- / -	- / 1.005	- / 0.208	- / 0.636	- / 0.756	- / 0.880	- / 29.273	- / 57.003	
<i>Subtotal: DC001 - SPS-73 RADAR</i>	79 / 18.452	- / 1.717	- / 4.076	2 / 1.005	- / -	2 / 1.005	2 / 0.208	6 / 0.636	6 / 0.756	6 / 0.880	158 / 29.273	259 / 57.003	
<i>Subtotal: Procurement, All Modification Items</i>	- / 18.452	- / 1.717	- / 4.076	- / 1.005	- / -	- / 1.005	- / 0.208	- / 0.636	- / 0.756	- / 0.880	- / 29.273	- / 57.003	
Support (All Modification Items)													
2.1) PRODUCTION SUPPORT	- / -	- / -	- / -	- / 0.387	- / -	- / 0.387	- / 0.459	- / 3.770	- / 2.128	- / 1.561	- / 96.380	- / 104.685	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 0.387	- / -	- / 0.387	- / 0.459	- / 3.770	- / 2.128	- / 1.561	- / 96.380	- / 104.685	
Installation													
<i>Modification Item 1 of 1:</i> DC001 - SPS-73 RADAR	- / 27.828	- / 0.902	- / 0.657	- / 0.643	- / -	- / 0.643	- / 0.720	- / 1.442	- / 2.067	- / 2.620	- / 56.717	- / 93.596	
<i>Subtotal: Installation</i>	- / 27.828	- / 0.902	- / 0.657	- / 0.643	- / -	- / 0.643	- / 0.720	- / 1.442	- / 2.067	- / 2.620	- / 56.717	- / 93.596	
Total													
Total Cost (Procurement + Support + Installation)	46.280	2.619	4.733	2.035	-	2.035	1.387	5.848	4.951	5.061	182.370	255.284	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 1 / DC001 - SPS-73 RADAR

Modification Item 1 of 1: DC001 - SPS-73 RADAR

Manufacturer Information

Manufacturer Name: AN/SPS-73 Next Generation Navigation Radar - TBD	Manufacturer Location: TBD
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 12

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	
Delivery Dates			Mar 2018	Mar 2019	Mar 2020	Mar 2021	

Installation Information

Method of Implementation: [none specified]:: Installation Name: SPS-73 SYSTEMS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	73 / 27.828	4 / 0.902	1 / 0.657	1 / 0.403	- / 0.000	1 / 0.403	- / -	- / -	- / -	- / -	- / 0.000	79 / 29.790
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	73 / 27.828	4 / 0.902	1 / 0.657	1 / 0.403	- / -	1 / 0.403	- / -	- / -	- / -	- / -	- / -	79 / 29.790

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	73	2	-	2	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79
Out	73	-	1	1	2	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79

Method of Implementation: [none specified]:: Installation Name: NEXT GENERATION NAVIGATION RADAR

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 1 / DC001 - SPS-73 RADAR

Modification Item 1 of 1: DC001 - SPS-73 RADAR

Installation Information

Method of Implementation: [none specified]:: Installation Name: NEXT GENERATION NAVIGATION RADAR

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / 0.240	- / -	- / 0.240	2 / 0.480	- / -	- / -	- / -	- / -	2 / 0.720
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.240	2 / 0.494	- / -	- / -	- / -	2 / 0.734
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.948	5 / 1.409	- / -	- / -	6 / 2.357
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.658	6 / 1.814	- / -	6 / 2.472
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.806	6 / 1.944	6 / 2.750
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	158 / 54.773	158 / 54.773
Total	- / -	- / -	- / -	- / 0.240	- / -	- / 0.240	2 / 0.720	3 / 1.442	5 / 2.067	6 / 2.620	164 / 56.717	180 / 63.806

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	1	1	-	3	1	1	-	2	4	-	164	180
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	1	-	1	4	1	-	2	3	165	180

Footnotes:

(4) FY16 and FY18 funding is required to complete installation of legacy AN/SPS-73(V)12 radar systems, due to changes in CNO availability schedules.

(5) Next Generation Radar installation funding consists of Design Services Allocation (DSA) funding in the year prior to the actual installation.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million				Modification Number / Title: 2 / DC009 - AN/SPS-48G RADAR OBSCOLESCENCE AND AVAILABILITY RECOVERY (ROAR)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	225.672	29.179	27.197	13.341	-	13.341	39.298	10.459	7.227	3.254	-	355.627
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	225.672	29.179	27.197	13.341	-	13.341	39.298	10.459	7.227	3.254	-	355.627
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	225.672	29.179	27.197	13.341	-	13.341	39.298	10.459	7.227	3.254	-	355.627

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The AN/SPS-48G 3-D Air Surveillance Radar is a follow-on to the existing AN/SPS-48E onboard Aircraft Carriers and large-deck Amphibious ships. AN/SPS-48G was initiated in response to Fleet complaints regarding AN/SPS-48E reliability and supportability. Upgrade of the AN/SPS-48E with the AN/SPS-48G remains a high Fleet priority as it will reduce Operation and Support (O&S) costs and improve Operational Availability. Both factors are cited by the Fleet as unsatisfactory for the AN/SPS-48E. The goal is to replace the AN/SPS-48E as rapidly as possible so the Fleet can realize these cost savings. Current efforts include the manufacturing of the AN/SPS-48G upgrade kits with associated production support as well as modifications to the AN/SPS-48G brought about by initial Fleet introduction and Fleet operations. Production lead time is 24 months for the initial unit with subsequent units delivered at two month intervals after initial delivery. Equipment delivery for installation is required thirty days prior to FMP availability start in accordance with Navy Modernization Process Management. Engineering Change Order funding is included to address Fleet recommended modifications/ requirements and Information Assurance, Obsolescence, and Diminishing Manufacturing Sources (DMS) issues. FY13 and beyond Engineering Change Proposal funding is to initiate incorporation of High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change now needs to be translated into the different hardware and software architectures of the AN/SPS-48G.

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Exhibit P-3a, Individual Modification: PB 2017 Navy											Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million							Modification Number / Title: 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)			
Models of Systems Affected: AN/SPS-48G				Modification Type: TBD				Related RDT&E PEs:						
Financial Plan	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		
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>		
Procurement														
<i>Modification Item 1 of 1: DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)</i>														
B Kits														
Recurring														
1.1.1) AN/SPS-48G HARDWARE - FMP - NonOrganic (6)	15 / 100.827	3 / 16.638	3 / 19.086	- / -	- / -	- / -	4 / 25.372	- / -	- / -	- / -	- / -	25 / 161.923		
1.1.2) EQUIPMENT NONRECURRING - Organic	- / 11.191	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.191		
1.1.3) ENGINEERING CHANGE PROPOSALS - Organic (7)	- / 5.245	- / 5.923	- / 2.760	- / 2.468	- / -	- / 2.468	- / 2.612	- / 1.200	- / 0.501	- / 0.511	- / -	- / 21.220		
1.1.4) ENGINEERING CHANGE ORDERS - Organic (8)	- / 50.600	- / 1.471	- / 1.635	- / 1.645	- / -	- / 1.645	- / 1.871	- / 1.000	- / 0.663	- / 0.676	- / -	- / 59.561		
1.1.5) AN/SPS-48G HARDWARE - NON-FMP - NonOrganic	2 / 12.973	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 12.973		
<i>Subtotal: Recurring</i>	<i>- / 180.836</i>	<i>- / 24.032</i>	<i>- / 23.481</i>	<i>- / 4.113</i>	<i>- / -</i>	<i>- / 4.113</i>	<i>- / 29.855</i>	<i>- / 2.200</i>	<i>- / 1.164</i>	<i>- / 1.187</i>	<i>- / -</i>	<i>- / 266.868</i>		
<i>Subtotal: DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)</i>	<i>17 / 180.836</i>	<i>3 / 24.032</i>	<i>3 / 23.481</i>	<i>- / 4.113</i>	<i>- / -</i>	<i>- / 4.113</i>	<i>4 / 29.855</i>	<i>- / 2.200</i>	<i>- / 1.164</i>	<i>- / 1.187</i>	<i>- / -</i>	<i>27 / 266.868</i>		
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 180.836</i>	<i>- / 24.032</i>	<i>- / 23.481</i>	<i>- / 4.113</i>	<i>- / -</i>	<i>- / 4.113</i>	<i>- / 29.855</i>	<i>- / 2.200</i>	<i>- / 1.164</i>	<i>- / 1.187</i>	<i>- / -</i>	<i>- / 266.868</i>		
Support (All Modification Items)														
2.1) PRODUCTION SUPPORT	- / 18.170	- / 1.147	- / 1.116	- / 1.078	- / -	- / 1.078	- / 1.143	- / 0.984	- / 0.413	- / 0.492	- / -	- / 24.543		
<i>Subtotal: Support</i>	<i>- / 18.170</i>	<i>- / 1.147</i>	<i>- / 1.116</i>	<i>- / 1.078</i>	<i>- / -</i>	<i>- / 1.078</i>	<i>- / 1.143</i>	<i>- / 0.984</i>	<i>- / 0.413</i>	<i>- / 0.492</i>	<i>- / -</i>	<i>- / 24.543</i>		
Installation														
<i>Modification Item 1 of 1: DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)</i>	<i>- / 26.666</i>	<i>- / 4.000</i>	<i>- / 2.600</i>	<i>- / 8.150</i>	<i>- / -</i>	<i>- / 8.150</i>	<i>- / 8.300</i>	<i>- / 7.275</i>	<i>- / 5.650</i>	<i>- / 1.575</i>	<i>- / -</i>	<i>- / 64.216</i>		
<i>Subtotal: Installation</i>	<i>- / 26.666</i>	<i>- / 4.000</i>	<i>- / 2.600</i>	<i>- / 8.150</i>	<i>- / -</i>	<i>- / 8.150</i>	<i>- / 8.300</i>	<i>- / 7.275</i>	<i>- / 5.650</i>	<i>- / 1.575</i>	<i>- / -</i>	<i>- / 64.216</i>		
Total														
Total Cost (Procurement + Support + Installation)	225.672	29.179	27.197	13.341	-	13.341	39.298	10.459	7.227	3.254	-	355.627		

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)

Modification Item 1 of 1: DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)

Manufacturer Information

Manufacturer Name: Exelis	Manufacturer Location: VAN NUYS, CA
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 24

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

Installation Information

Method of Implementation: [none specified]:: Installation Name: AN/SPS-48G HARDWARE - FMP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 22.300	3 / 4.000	- / 2.600	3 / 5.600	- / 0.000	3 / 5.600	1 / 1.250	- / -	- / -	- / -	- / 0.000	15 / 35.750
FY 2015	- / -	- / -	- / -	- / 2.550	- / -	- / 2.550	3 / 4.500	- / -	- / -	- / -	- / -	3 / 7.050
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.550	3 / 4.500	- / -	- / -	- / -	3 / 7.050
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.775	3 / 5.650	1 / 1.575	- / -	4 / 10.000
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 22.300	3 / 4.000	- / 2.600	3 / 8.150	- / -	3 / 8.150	4 / 8.300	3 / 7.275	3 / 5.650	1 / 1.575	- / -	25 / 59.850

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	1	2	-	-	-	-	-	-	-	3	-	-	1	3	-	-	1	2	-	-	2	1	-	-	-	1	-	-
Out	6	-	-	-	1	1	-	-	-	1	-	1	1	-	-	-	1	2	-	1	3	1	-	-	2	1	1	-	1	1	1

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 2 / DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)

Modification Item 1 of 1: DC009 - AN/SPS-48G RADAR OBSOLESCENCE AND AVAILABILITY RECOVERY (ROAR)

Installation Information

Method of Implementation: AIT:: Installation Name: AN/SPS-48G HARDWARE - NON-FMP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	2 / 4.366	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 4.366
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 4.366	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.366

Installation Schedule

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

Footnotes:

(6) Due to contractor production line throughput limitations, FY15 SPS-48G upgrade kit three will deliver in Jul 2018 and FY16 kit one will deliver in Sep 2018

(7) FY13 and beyond Engineering Change Proposal funding is to incorporate High Diver Detection and Tracking functionality. This capability was designed and incorporated into the AN/SPS-48E after design of the AN/SPS-48G had been initiated. This change now needs to be translated into the different hardware and software architectures of the AN/SPS-48G. Increase in ECP funding in FY14 (\$3.6M), FY15 (\$3.6M), and FY16 (\$1.8M) is required for tech refresh of obsolete Modulators and Converters.

(8) Increase in ECO funding in FY14 (\$696k), FY15 (\$421k), and FY16 (\$700k) is required for procurement of software due to IA requirements levied after the program was base-lined, as well as waveform changes.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million			Modification Number / Title: 3 / DC010 - AN/SPS-49 IN-SERVICE RADARS					

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	20.180	-	-	-	-	-	-	-	-	-	-	20.180
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	20.180	-	-	-	-	-	-	-	-	-	-	20.180
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	20.180	-	-	-	-	-	-	-	-	-	-	20.180
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This funding continues and executes efforts funded under the Radar Improvement Program. This program addresses already realized obsolescence, cost, reliability and maintainability issues raised by the fleet for the AN/SPS-49(V) air search radar, initially introduced in the Navy in the 1970's. These funds support the completion of the AN/SPS-49 Solid State Modulator (SSM) program and provide funding to begin addressing serious obsolescence issues throughout the radar including already obsolete Circuit Card Assemblies (CCAs) and other electrical components, and ongoing reliability problems in the transmitter. An upgrade to the existing LHD 1 AN/SPS-49(V)5 radar is required for interoperability with the Ship Self Defense System (SSDS) MK II, and the current AN/SPS-49(V)5 radar will not support the CAPSTONE Combat System being installed aboard LHD 1. The SSM effort replaces the current modulator to address obsolescence and Unable to Procure (UTP) issues associated with the modulator installed in the AN/SPS-49(V) radar. This program also installs a previously procured AN/SPS-49A(V)1 Medium Pulse Upgrade (MPU) Kit on the existing AN/SPS-49(V)5 radar aboard LHD 1 required as part of the planned CAPSTONE upgrade to the LHD 1 Combat System. Without this upgrade, the SPS-49 will not be able to operate with the Ship Self Defense System (SSDS) being installed as part of CAPSTONE.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2980 / Items less than \$5 Million					Modification Number / Title: 3 / DC010 - AN/SPS-49 IN-SERVICE RADARS			
Models of Systems Affected: AN/SPS-49				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: DC010 - AN/SPS-49 IN-SERVICE RADARS</i>													
B Kits													
Recurring													
1.1.1) HARDWARE - FMP - NonOrganic	28 / 7.481	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 7.481	
1.1.2) OTHER - Organic	- / 14.940	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 14.940	
1.1.3) HARDWARE - NON-FMP - NonOrganic	5 / 0.938	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.938	
1.1.4) ENGINEERING CHANGE PROPOSALS (ECPS) - NonOrganic	- / 0.001	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	
<i>Subtotal: Recurring</i>	<i>- / 13.360</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.360</i>	
<i>Subtotal: DC010 - AN/SPS-49 IN-SERVICE RADARS</i>	<i>33 / 13.360</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>33 / 13.360</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 13.360</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 13.360</i>	
Installation													
<i>Modification Item 1 of 1: DC010 - AN/SPS-49 IN-SERVICE RADARS</i>													
<i>Subtotal: Installation</i>	<i>- / 6.820</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 6.820</i>	
Total													
Total Cost (Procurement + Support + Installation)	20.180	-	-	-	-	-	-	-	-	-	-	20.180	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 3 / DC010 - AN/SPS-49 IN-SERVICE RADARS

Modification Item 1 of 1: DC010 - AN/SPS-49 IN-SERVICE RADARS

Manufacturer Information

Manufacturer Name: POLARITY, INC	Manufacturer Location: RANCHO CORDOVA, CA
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	33 / 6.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	33 / 6.820
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	33 / 6.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	33 / 6.820

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33
Out	33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million				Modification Number / Title: 5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.199	0.214	0.995	1.293	-	1.293	1.484	1.469	1.489	1.517	13.497	27.157
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.199	0.214	0.995	1.293	-	1.293	1.484	1.469	1.489	1.517	13.497	27.157
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.199	0.214	0.995	1.293	-	1.293	1.484	1.469	1.489	1.517	13.497	27.157
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides real-time valunumeric wind profiles, convective weather detection/display, and radar refractivity assessments from AN/SPY-1 radar returns. TEP will be an adjunct processor and display, tapping radar data from weather and refractivity data, with users able to access information through Secret Internet Protocol Router (SIPR). TEP installations began in FY13, are aligned with AEGIS Modernization in FY14 and will continue beyond the FYDP.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million						Modification Number / Title: 5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)			
Models of Systems Affected: TACTICAL ENVIRONMENTAL PROCESSOR (TEP)				Modification Type: TBD						Related RDT&E PEs:			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)													
B Kits													
Recurring													
1.1.1) DDG HARDWARE - FMP - NonOrganic ⁽⁹⁾	3 / 1.070	- / -	1 / 0.375	2 / 0.763	- / -	2 / 0.763	2 / 0.780	2 / 0.795	2 / 0.809	2 / 0.831	21 / 9.310	35 / 14.733	
1.1.2) DDG COTS REFRESH - Organic	- / -	- / -	- / 0.085	- / 0.122	- / -	- / 0.122	- / -	- / -	- / 0.170	- / 0.085	- / -	- / 0.462	
1.1.3) PRODUCTION SUPPORT - Organic	- / 3.380	- / -	- / 0.515	- / 0.257	- / -	- / 0.257	- / 0.151	- / 0.113	- / 0.248	- / 0.336	- / 0.975	- / 5.975	
1.1.4) TEP SHORE SITES HARDWARE - NonOrganic	3 / 0.499	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.499	
<i>Subtotal: Recurring</i>	- / 4.949	- / -	- / 0.975	- / 1.142	- / -	- / 1.142	- / 0.931	- / 0.908	- / 1.227	- / 1.252	- / 10.285	- / 21.669	
<i>Subtotal: DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)</i>	6 / 4.949	- / -	1 / 0.975	2 / 1.142	- / -	2 / 1.142	2 / 0.931	2 / 0.908	2 / 1.227	2 / 1.252	21 / 10.285	38 / 21.669	
<i>Subtotal: Procurement, All Modification Items</i>	- / 4.949	- / -	- / 0.975	- / 1.142	- / -	- / 1.142	- / 0.931	- / 0.908	- / 1.227	- / 1.252	- / 10.285	- / 21.669	
Installation													
<i>Modification Item 1 of 1:</i> DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)	- / 0.250	- / 0.214	- / 0.020	- / 0.151	- / -	- / 0.151	- / 0.553	- / 0.561	- / 0.262	- / 0.265	- / 3.212	- / 5.488	
<i>Subtotal: Installation</i>	- / 0.250	- / 0.214	- / 0.020	- / 0.151	- / -	- / 0.151	- / 0.553	- / 0.561	- / 0.262	- / 0.265	- / 3.212	- / 5.488	
Total													
Total Cost (Procurement + Support + Installation)	5.199	0.214	0.995	1.293	-	1.293	1.484	1.469	1.489	1.517	13.497	27.157	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)

Modification Item 1 of 1: DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)

Manufacturer Information

Manufacturer Name: BASIC COMMERCE AND INDUSTRIES, INC	Manufacturer Location: MOORESTOWN, NJ
Administrative Leadtime (in Months): 0	Production Leadtime (in Months): 11

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Dec 2015	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates		Nov 2016	Nov 2017	Nov 2018	Nov 2019	Nov 2020	Nov 2021

Installation Information

Method of Implementation: AIT:: Installation Name: DDG HARDWARE - FMP

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	1 / 0.105	2 / 0.214	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 0.319
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / 0.020	1 / 0.111	- / -	1 / 0.111	- / -	- / -	- / -	- / -	- / -	1 / 0.131
FY 2017	- / -	- / -	- / -	- / 0.040	- / -	- / 0.040	2 / 0.513	- / -	- / -	- / -	- / -	2 / 0.553
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040	2 / 0.521	- / -	- / -	- / -	2 / 0.561
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040	2 / 0.222	- / -	- / -	2 / 0.262
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040	2 / 0.225	- / -	2 / 0.265
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.040	2 / 0.217	2 / 0.257
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 2.995	21 / 2.995
Total	1 / 0.105	2 / 0.214	- / 0.020	1 / 0.151	- / -	1 / 0.151	2 / 0.553	2 / 0.561	2 / 0.262	2 / 0.265	23 / 3.212	35 / 5.343

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	1	-	-	-	2	-	-	-	-	-	1	-	-	-	1	-	1	-	1	-	1	1	-	-	1	1	1	-	-	23	35
Out	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	1	1	1	-	-	1	-	1	-	-	1	-	1	25	35

Method of Implementation: [none specified]:: Installation Name: TEP SHORE SITES HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	3 / 0.145	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 0.145

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 5 / DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)

Modification Item 1 of 1: DC015 - TACTICAL ENVIRONMENTAL PROCESSOR (TEP)

Installation Information

Method of Implementation: [none specified]:: Installation Name: TEP SHORE SITES HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 0.145	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.145

Installation Schedule

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

Footnotes:

⁽⁹⁾ Increased installation costs in FY18 and FY19 due to inability to leverage AMOD availability.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10				P-1 Line Item Number / Title: 2980 / Items less than \$5 Million				Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	11.992	14.527	17.509	19.010	-	19.010	36.648	26.377	26.278	29.647	182.296	364.284
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.992	14.527	17.509	19.010	-	19.010	36.648	26.377	26.278	29.647	182.296	364.284
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.992	14.527	17.509	19.010	-	19.010	36.648	26.377	26.278	29.647	182.296	364.284
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

DC018 AN/SPY-1 RM&A IMPROVEMENTS - These Reliability, Maintainability, and Availability (RM&A) improvements are intended to reduce cascading failures, mitigate obsolescence issues, and improve reliability in support of Anti-Air Warfare (AAW) and Ballistic Missile Defense (BMD) missions while still providing AN/SPY-1 Radar Total Ownership Cost (TOC) reductions. The improvements include, but are not limited to, installation for Sidewall Capacitor Circuit Protection and 10kW Traveling Wave Tube (TWT) Monitoring Circuits Ordnance Alterations (ORDALTS) starting in FY13 and Water Cooled Vane (WCV) to Double Duty (DD) conversion kits starting in FY16. AN/SPY-1 Pack Up Kits (PUKs) consist of long lead and high failure parts procured in FY14, then provided to and managed by Regional Maintenance Centers (RMCs). Solid State Switch Assemblies (SSSA) will be procured beginning in FY15 through replacement of legacy switch tube modulator deck ORDALT. FY18 includes funding for shock qualification testing of the SSSA and SPY-1D(V) Final Power Amplifier (FPA) cabinet required by MILSPEC 901-D.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10					P-1 Line Item Number / Title: 2980 / Items less than \$5 Million					Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS			
Models of Systems Affected: AN/SPY-1 RM&A IMPROVEMENTS				Modification Type: TBD				Related RDT&E PEs: 0604501N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS</i>													
B Kits													
Recurring													
1.1) SIDEWALL AND 10KW TWT DDG HARDWARE - NonOrganic ⁽¹⁰⁾	21 / 2.374	22 / 2.430	3 / 0.384	8 / 1.125	- / -	8 / 1.125	7 / 1.226	1 / 0.178	- / -	- / -	- / -	62 / 7.717	
1.2) PACK UP KITS - Organic	3 / 4.125	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 4.125	
1.3) PRODUCTION SUPPORT - Organic	- / 1.602	- / 0.531	- / 0.476	- / 0.669	- / -	- / 0.669	- / 1.039	- / 0.907	- / 0.810	- / 0.765	- / 6.025	- / 12.824	
1.4) SIDEWALL AND 10KW TWT CG HARDWARE - NonOrganic	8 / 2.124	2 / 0.497	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 2.621	
1.5) SIDEWALL AND 10KW TWT SHORE SITE HARDWARE - NonOrganic	8 / 1.172	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 1.172	
1.6) WATER COOLED VANE (WCV) TO DOUBLE DUTY CONVERSION KITS - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 72.486	28 / 72.486	
1.7) SOLID STATE SWITCH ASSEMBLY DDG HARDWARE - NonOrganic ⁽¹¹⁾	- / -	1 / 2.674	2 / 7.218	4 / 11.654	- / -	4 / 11.654	6 / 15.264	7 / 17.808	8 / 20.160	9 / 22.788	31 / 79.236	68 / 176.802	
1.8) SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE - NonOrganic	- / -	2 / 5.347	1 / 2.480	1 / 2.560	- / -	1 / 2.560	1 / 2.544	1 / 2.544	- / -	- / -	- / -	6 / 15.475	
1.9) SOLID STATE SWITCH ASSEMBLY SPARES - NonOrganic ⁽¹²⁾	- / -	6 / 1.917	16 / 5.260	5 / 1.598	- / -	5 / 1.598	7 / 2.272	8 / 2.544	7 / 2.205	8 / 2.532	6 / 2.134	63 / 20.462	
1.10) SOLID STATE SWITCH ASSEMBLY FINAL POWER AMPLIFIER ENV/QUAL - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	1 / 12.600	- / -	- / -	- / -	- / -	1 / 12.600	
<i>Subtotal: Recurring</i>	<i>- / 11.397</i>	<i>- / 13.396</i>	<i>- / 15.818</i>	<i>- / 17.606</i>	<i>- / -</i>	<i>- / 17.606</i>	<i>- / 34.945</i>	<i>- / 23.981</i>	<i>- / 23.175</i>	<i>- / 26.085</i>	<i>- / 159.881</i>	<i>- / 326.284</i>	
<i>Subtotal: DC018 - AN/SPY-1 RM&A IMPROVEMENTS</i>	<i>40 / 11.397</i>	<i>33 / 13.396</i>	<i>22 / 15.818</i>	<i>18 / 17.606</i>	<i>- / -</i>	<i>18 / 17.606</i>	<i>22 / 34.945</i>	<i>17 / 23.981</i>	<i>15 / 23.175</i>	<i>17 / 26.085</i>	<i>65 / 159.881</i>	<i>249 / 326.284</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 11.397</i>	<i>- / 13.396</i>	<i>- / 15.818</i>	<i>- / 17.606</i>	<i>- / -</i>	<i>- / 17.606</i>	<i>- / 34.945</i>	<i>- / 23.981</i>	<i>- / 23.175</i>	<i>- / 26.085</i>	<i>- / 159.881</i>	<i>- / 326.284</i>	
Installation													
<i>Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS</i>	<i>- / 0.595</i>	<i>- / 1.131</i>	<i>- / 1.691</i>	<i>- / 1.404</i>	<i>- / -</i>	<i>- / 1.404</i>	<i>- / 1.703</i>	<i>- / 2.396</i>	<i>- / 3.103</i>	<i>- / 3.562</i>	<i>- / 22.415</i>	<i>- / 38.000</i>	
<i>Subtotal: Installation</i>	<i>- / 0.595</i>	<i>- / 1.131</i>	<i>- / 1.691</i>	<i>- / 1.404</i>	<i>- / -</i>	<i>- / 1.404</i>	<i>- / 1.703</i>	<i>- / 2.396</i>	<i>- / 3.103</i>	<i>- / 3.562</i>	<i>- / 22.415</i>	<i>- / 38.000</i>	
Total													
Total Cost (Procurement + Support + Installation)	11.992	14.527	17.509	19.010	-	19.010	36.648	26.377	26.278	29.647	182.296	364.284	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Manufacturer Information

Manufacturer Name: SOLID STATE SWITCH ASSEMBLY (SSSA) - RAYTHEON				Manufacturer Location: Andover, MA			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2016	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021
Delivery Dates	Sep 2017	Sep 2017	Sep 2018	Sep 2019	Sep 2020	Sep 2021	Sep 2022
Manufacturer Name: SEWALL AND 10KW TWT ORDALTS - RAYTHEON				Manufacturer Location: Sudbury, MA			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016	Mar 2017	Mar 2018	Mar 2019		
Delivery Dates	Mar 2016	Mar 2017	Mar 2018	Mar 2019	Mar 2020		
Manufacturer Name: WATER COOLED VANE TO DOUBLE DUTY CONVERSION KITS - CPI AND L3				Manufacturer Location: Beverly, MA and Willamsport, PA			
Administrative Leadtime (in Months): 0				Production Leadtime (in Months): 18			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

Method of Implementation: AIT:: Installation Name: SEWALL AND 10KW TWT DDG HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	12 / 0.521	9 / 0.311	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	21 / 0.832
FY 2015	- / -	- / -	22 / 1.385	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 1.385
FY 2016	- / -	- / -	- / -	3 / 0.160	- / -	3 / 0.160	- / -	- / -	- / -	- / -	- / -	3 / 0.160
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.437	- / -	- / -	- / -	- / -	8 / 0.437
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 0.248	- / -	- / -	- / -	7 / 0.248
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.042	- / -	- / -	1 / 0.042
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	12 / 0.521	9 / 0.311	22 / 1.385	3 / 0.160	- / -	3 / 0.160	8 / 0.437	7 / 0.248	1 / 0.042	- / -	- / -	62 / 3.104

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Installation Information

Method of Implementation: AIT:: Installation Name: SIDEWALL AND 10KW TWT DDG HARDWARE

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	12	-	-	2	7	-	7	8	7	-	-	1	2	-	4	2	2	-	1	2	4	-	-	-	1	-	-	-	-	-	-	62
Out	4	-	4	4	2	7	7	8	7	-	-	1	2	-	4	2	2	-	1	2	4	-	-	-	1	-	-	-	-	-	-	62

Method of Implementation: AIT:: Installation Name: SIDEWALL AND 10KW TWT CG HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	8 / 0.820	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 0.820
FY 2015	- / -	- / -	2 / 0.306	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.306
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	8 / 0.820	2 / 0.306	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.126

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	2	2	4	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	-	-	-	-	4	-	4	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

Method of Implementation: AIT:: Installation Name: SIDEWALL AND 10KW TWT SHORE SITE HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 0.074

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Installation Information

Method of Implementation: AIT:: Installation Name: SIDEWALL AND 10KW TWT SHORE SITE HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 0.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.074

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	
Out	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	

Method of Implementation: [none specified]:: Installation Name: WATER COOLED VANE (WCV) TO DOUBLE DUTY CONVERSION KITS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 0.661	28 / 0.661
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 0.661	28 / 0.661

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10	P-1 Line Item Number / Title: 2980 / Items less than \$5 Million	Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Installation Information

Method of Implementation: [none specified]:: Installation Name: WATER COOLED VANE (WCV) TO DOUBLE DUTY CONVERSION KITS

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	28
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28	28

Method of Implementation: [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY DDG HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	1 / 0.415	- / -	1 / 0.415	- / -	- / -	- / -	- / -	- / -	1 / 0.415
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.844	- / -	- / -	- / -	- / -	2 / 0.844
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.718	- / -	- / -	- / -	4 / 1.718
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.624	- / -	- / -	6 / 2.624
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 3.116	- / -	7 / 3.116
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.626	8 / 3.626
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 4.079	9 / 4.079
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 14.049	31 / 14.049
Total	- / -	- / -	- / -	1 / 0.415	- / -	1 / 0.415	2 / 0.844	4 / 1.718	6 / 2.624	7 / 3.116	48 / 21.754	68 / 30.471

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	2	2	-	2	2	2	-	2	3	2	48	68
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	-	2	2	2	2	2	-	2	3	50	68

Method of Implementation: [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 10		P-1 Line Item Number / Title: 2980 / Items less than \$5 Million
		Modification Number / Title: 6 / DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Modification Item 1 of 1: DC018 - AN/SPY-1 RM&A IMPROVEMENTS

Installation Information

Method of Implementation: [none specified]:: Installation Name: SOLID STATE SWITCH ASSEMBLY SHORE SITE HARDWARE

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	2 / 0.829	- / -	2 / 0.829	- / -	- / -	- / -	- / -	- / -	2 / 0.829
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.422	- / -	- / -	- / -	- / -	1 / 0.422
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.430	- / -	- / -	- / -	1 / 0.430
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.437	- / -	- / -	1 / 0.437
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.446	- / -	1 / 0.446
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 0.829	- / -	2 / 0.829	1 / 0.422	1 / 0.430	1 / 0.437	1 / 0.446	- / -	6 / 2.564

Installation Schedule

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

Method of Implementation (Organic): PACK UP KITS

Installation Quantity: 3

Footnotes:

- (10) Sidewall and 10KW ORDALT installation costs vary dependent on kit being installed.
- (11) FY16 AND FY17 Solid State Switch Assembly DDG Hardware includes funding for SSSA transition to production.
- (12) Solid State Switch Assembly Spares include initial spares and INCOs which are required for installations.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications	P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms
---	---

ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	14.410	8.722	17.366	-	17.366	34.030	44.436	53.542	55.300	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	14.410	8.722	17.366	-	17.366	34.030	44.436	53.542	55.300	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	14.410	8.722	17.366	-	17.366	34.030	44.436	53.542	55.300	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	0.113	0.004	-	0.004	0.001	0.001	-	-	-	0.119
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Shipboard Tactical Communications by \$0.7M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

[P3A / (DN 110) DMR IW and MUOS Waveforms]: Digital Modular Radio (DMR) with Integrated Waveform (IW) and Mobile User Objective System (MUOS) Waveforms capable hardware is a four-channel software defined radio that provides satellite communications, Line of Sight (LOS) and High Frequency (HF), Very High Frequency (VHF) and Ultra High Frequency (UHF) communication capability to surface, submarine, and shore facilities. This Variant of DMR includes hardware that is IW and MUOS Waveforms compatible, and will allow IW and MUOS Waveforms software installation as those capabilities become available.

[P3A - 2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits]: Digital Modular Radio (DMR) with Integrated Waveform (IW) and Mobile User Objective System (MUOS) Waveforms capable Upgrade Kits provide hardware and IW and MUOS capable software to upgrade fielded DMR systems.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications

P-1 Line Item Number / Title:
3010 / Shipboard Tactical Comms

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / (DN 110) DMR IW and MUOS Waveforms (TBD)			- / 0.000	- / 14.410	- / 8.722	- / 10.574	- / -	- / 10.574
P-3a	2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits (TBD)			- / 0.000	- / -	- / -	- / 6.792	- / -	- / 6.792
P-40	Total Gross/Weapon System Cost			- / 0.000	- / 14.410	- / 8.722	- / 17.366	- / -	- / 17.366

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / (DN 110) DMR IW and MUOS Waveforms (TBD)			- / 23.623	- / 33.709	- / 48.101	- / 51.187	Continuing	Continuing
P-3a	2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits (TBD)			- / 10.407	- / 10.727	- / 5.441	- / 4.113	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 34.030	- / 44.436	- / 53.542	- / 55.300	Continuing	Continuing

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

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

Justification:
FY17 funding provides for the procurement of 31 Integrated Waveform (IW) and Mobile User Objective System (MUOS) Waveforms capable upgrade kits and 5 IW and MUOS Waveform capable DMR systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms				Modification Number / Title: 1 / (DN 110) DMR IW and MUOS Waveforms				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	14.410	8.722	10.574	-	10.574	23.623	33.709	48.101	51.187	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	14.410	8.722	10.574	-	10.574	23.623	33.709	48.101	51.187	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	14.410	8.722	10.574	-	10.574	23.623	33.709	48.101	51.187	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Digital Modular Radio (DMR) with Integrated Waveform (IW) and Mobile User Objective System (MUOS) Waveforms capable hardware is a four-channel software defined radio that provides satellite communications, Line of Sight (LOS) and High Frequency (HF), Very High Frequency (VHF) and Ultra High Frequency (UHF) communication capability to surface, submarine, and shore facilities. This Variant of DMR includes hardware that is IW/MUOS Waveform compatible, and will allow IW/MUOS software installation as those capabilities become available.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11					P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms					Modification Number / Title: 1 / (DN 110) DMR IW and MUOS Waveforms			
Models of Systems Affected: AN/USC-61(C)				Modification Type: TBD				Related RDT&E PEs: 0604280N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: (DN 110) DMR IW and MUOS Waveforms</i>													
B Kits													
Recurring													
1.1.1) DMR IW and MUOS Waveforms Procurement - Shore - NonOrganic ⁽¹⁾	- / -	6 / 6.615	- / -	- / -	- / -	- / -	1 / 1.150	1 / 1.185	1 / 1.220	- / -	Continuing	Continuing	
1.1.2) DMR IW and MUOS Waveforms Procurement - Afloat - NonOrganic	- / -	6 / 5.556	5 / 4.769	5 / 4.912	- / -	5 / 4.912	18 / 18.738	25 / 27.406	28 / 32.549	26 / 31.596	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / 12.171	- / 4.769	- / 4.912	- / -	- / 4.912	- / 19.888	- / 28.591	- / 33.769	- / 31.596	Continuing	Continuing	
<i>Subtotal: (DN 110) DMR IW and MUOS Waveforms</i>	- / -	12 / 12.171	5 / 4.769	5 / 4.912	- / -	5 / 4.912	19 / 19.888	26 / 28.591	29 / 33.769	26 / 31.596	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 12.171	- / 4.769	- / 4.912	- / -	- / 4.912	- / 19.888	- / 28.591	- / 33.769	- / 31.596	Continuing	Continuing	
Support (All Modification Items)													
2.1) DMR IW and MUOS Waveforms Production Support ⁽²⁾	- / -	- / 2.173	- / 0.286	- / 0.295	- / -	- / 0.295	- / 1.249	- / 1.721	- / 1.928	- / 1.783	Continuing	Continuing	
2.2) DMR IW and MUOS Waveforms DSA ⁽³⁾	- / -	- / 0.066	- / 3.667	- / 0.402	- / -	- / 0.402	- / 0.574	- / 1.427	- / 3.673	- / 4.454	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / 2.239	- / 3.953	- / 0.697	- / -	- / 0.697	- / 1.823	- / 3.148	- / 5.601	- / 6.237	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: (DN 110) DMR IW and MUOS Waveforms</i>	- / 0.000	- / -	- / -	- / 4.965	- / -	- / 4.965	- / 1.912	- / 1.970	- / 8.731	- / 13.354	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 4.965	- / -	- / 4.965	- / 1.912	- / 1.970	- / 8.731	- / 13.354	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	0.000	14.410	8.722	10.574	-	10.574	23.623	33.709	48.101	51.187	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms	Modification Number / Title: 1 / (DN 110) DMR IW and MUOS Waveforms

Modification Item 1 of 1: (DN 110) DMR IW and MUOS Waveforms

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, Arizona
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Aug 2015	May 2016	May 2017				
Delivery Dates	Aug 2017	May 2018	May 2019				

Installation Information

Method of Implementation: [none specified]:: Installation Name: DMR IW and MUOS Waveforms Procurement - Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	6 / 2.737	- / -	6 / 2.737	- / -	- / -	- / -	- / -	- / -	6 / 2.737
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.499	- / -	- / -	1 / 0.499
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.514	- / -	1 / 0.514
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.529	1 / 0.529
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	- / -	6 / 2.737	- / -	6 / 2.737	- / -	- / -	1 / 0.499	1 / 0.514	Continuing	Continuing

Installation Schedule

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

Method of Implementation: [none specified]:: Installation Name: DMR IW and MUOS Waveforms Procurement - Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms	Modification Number / Title: 1 / (DN 110) DMR IW and MUOS Waveforms

Modification Item 1 of 1: (DN 110) DMR IW and MUOS Waveforms

Installation Information

Method of Implementation: [none specified]:: Installation Name: DMR IW and MUOS Waveforms Procurement - Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	6 / 2.228	- / -	6 / 2.228	- / -	- / -	- / -	- / -	- / -	6 / 2.228
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.912	- / -	- / -	- / -	- / -	5 / 1.912
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.970	- / -	- / -	- / -	5 / 1.970
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 8.232	- / -	- / -	18 / 8.232
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 12.840	- / -	25 / 12.840
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 14.812	28 / 14.812
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 14.166	26 / 14.166
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	- / -	6 / 2.228	- / -	6 / 2.228	5 / 1.912	5 / 1.970	18 / 8.232	25 / 12.840	Continuing	Continuing

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	3	3	-	3	1	1	-	2	1	2	-	6	7	5	-	7	12	Cont.	Cont.
Out	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	3	1	1	-	2	1	2	-	6	7	5	-	7	Cont.	Cont.

Footnotes:

- (1) 24 month Production Lead Time (PLT) for DMR IW and MUOS Waveforms Upgrade Kit delivery due to varying PLT's from multiple resource vendors for the final product. 7 Month Administrative Lead Time (ALT) for DMR IW and MUOS systems to allow synchronization with SCN to take advantage of favorable quantity pricing.
- (2) FY15 Production Support increase is associated with initial insertion of funds for assessing existing production of DMR systems, identification of production requirements, and determination of optimal production strategies to align exiting DMR production with DMR IW/MOOS technology.
- (3) FY15 DSA is for establishment of the TACAMO shore site Installation Requirements Document (IRD). FY16 DSA increase is associated with initial Los Angeles Class Submarine Ship Class DSA requirements. FY17-FY21 DSA cost are the sum of DSA requirements for multiple shore, surface and sub-surface configurations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms				Modification Number / Title: 2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	0.000	-	-	6.792	-	6.792	10.407	10.727	5.441	4.113	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	-	6.792	-	6.792	10.407	10.727	5.441	4.113	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	-	6.792	-	6.792	10.407	10.727	5.441	4.113	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Digital Modular Radio (DMR) with Integrated Waveform (IW) and Mobile User Objective System (MUOS) Waveforms capable Upgrade Kits provide hardware and IW and MUOS capable software to upgrade fielded DMR systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11					P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms					Modification Number / Title: 2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits			
Models of Systems Affected: AN/USC-61(C)				Modification Type: TBD				Related RDT&E PEs: 0604280N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> (DN 111) DMR IW and MUOS Waveforms Upgrade Kits													
B Kits													
Recurring													
1.1.1) DMR IW and MUOS Waveforms Upgrade Kits Procurement - NonOrganic ⁽⁴⁾	- / -	- / -	- / -	31 / 5.746	- / -	31 / 5.746	46 / 9.123	26 / 5.711	1 / 0.268	5 / 1.078	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 5.746	- / -	- / 5.746	- / 9.123	- / 5.711	- / 0.268	- / 1.078	Continuing	Continuing	
<i>Subtotal: (DN 111) DMR IW and MUOS Waveforms Upgrade Kits</i>	- / -	- / -	- / -	31 / 5.746	- / -	31 / 5.746	46 / 9.123	26 / 5.711	1 / 0.268	5 / 1.078	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 5.746	- / -	- / 5.746	- / 9.123	- / 5.711	- / 0.268	- / 1.078	Continuing	Continuing	
Support (All Modification Items)													
2.1) DMR IW and MUOS Waveforms Upgrade Kits Production Support	- / -	- / -	- / -	- / 0.193	- / -	- / 0.193	- / 0.427	- / 0.329	- / 0.058	- / 0.078	Continuing	Continuing	
2.2) DMR IW and MUOS Waveforms Upgrade Kits DSA	- / -	- / -	- / -	- / 0.853	- / -	- / 0.853	- / 0.857	- / 0.869	- / 0.668	- / 0.224	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / -	- / 1.046	- / -	- / 1.046	- / 1.284	- / 1.198	- / 0.726	- / 0.302	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> (DN 111) DMR IW and MUOS Waveforms Upgrade Kits	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.818	- / 4.447	- / 2.733	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.818	- / 4.447	- / 2.733	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	-	6.792	-	6.792	10.407	10.727	5.441	4.113	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3010 / Shipboard Tactical Comms	Modification Number / Title: 2 / (DN 111) DMR IW and MUOS Waveforms Upgrade Kits

Modification Item 1 of 1: (DN 111) DMR IW and MUOS Waveforms Upgrade Kits

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Scottsdale, Arizona
Administrative Leadtime (in Months): 7	Production Leadtime (in Months): 24

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			May 2017				
Delivery Dates			May 2019				

Installation Information

Method of Implementation: Method:: Installation Name: DMR MUOS Upgrade Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 3.818	- / -	- / -	- / -	31 / 3.818
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	46 / 4.447	- / -	- / -	46 / 4.447
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	26 / 2.733	- / -	26 / 2.733
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.103	1 / 0.103
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 3.818	46 / 4.447	26 / 2.733	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	15	-	14	16	16	-	10	10	Cont.	Cont.
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	15	-	14	16	16	-	10	Cont.	Cont.

Footnotes:
⁽⁴⁾ 24 month Production Lead Time (PLT) for DMR IW and MUOS Waveforms Upgrade Kit delivery due to varying PLT's from multiple resource vendors for the final product. 7 Month Administrative Lead Time (ALT) for DMR IW and MUOS Waveforms Upgrade Kits to allow synchronization with SCN to take advantage of favorable quantity pricing.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications	P-1 Line Item Number / Title: 3050 / Ship Communications Automation
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0204163N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	405.781	20.830	108.477	102.479	-	102.479	70.569	78.145	80.054	81.198	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	405.781	20.830	108.477	102.479	-	102.479	70.569	78.145	80.054	81.198	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	405.781	20.830	108.477	102.479	-	102.479	70.569	78.145	80.054	81.198	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.137	0.176	0.023	-	0.023	0.050	0.071	0.127	-	-	0.584
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Ship Communication Automation by \$4.1M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

Ship Communication Automation (52PQ): With the evolution of afloat networks programs migrating into the Consolidated Afloat Networks and Enterprise Services (CANES) program , the Ship Communications Automation budget line will continue to support Automated Digital Network System (ADNS), Legacy Network Operation Rolling Tide (ORT), Command and Control Official Information eXchange (C2OIX) (formerly Tactical Messaging), and Tactical Switching programs.

Automated Digital Network System (ADNS): ADNS provides routing, switching, baseband, configuration and monitoring capabilities for interconnecting naval and coalition enclaves worldwide. ADNS utilizes Commercial Off-the-Shelf/ Government Off-the-Shelf (COTS/GOTS) equipment and network protocols as specified by the joint technical architecture. ADNS Increment(INC) I provides initial limited, ship to shore IP connectivity, separation of enclaves, reuse of unused enclave bandwidth, and ship to tactical shore IP connectivity. ADNS INC II provides capabilities of network to Satellite Communications, Load Balancing, Radio Frequency (RF) restoral, and Quality of Service (QoS) to include application prioritization, Traffic Management, compression and enhancements designed to maximize use of "effective" available bandwidth for surface, shore, and airborne platforms. ADNS INC III combines all Navy Tactical Voice, secure Communications Interoperability Protocol Inter-Working Function, Video, and data requirements into a converged IP data stream. This includes Secure Communication Interoperability- Protocol Interworking Function (SCIP-IWF) for secure telephony over IP. In addition, the INC III architecture will incorporate an IPv4/IPv6 dual stack and a Cipher-Text security architecture to align to the Global Information Grid (GIG) in order to mesh Navy tactical surface, subsurface, and airborne platforms into a single IP environment with gateway functions to joint and coalition networks. Prior to FY13 ADNS funding resides in BLI 3050. FY13-15 funding resides in BLI 2915. Starting in FY16, funding was realigned back into BLI 3050 for Major Automated Information System (MAIS) transparency compliance.

Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT): ORT is a Navy-wide cyber remediation effort to secure government databases and improve the overall security protocols for Navy computer networks. Specifically, Legacy Network Cyber Resiliency/ORT will fund planned legacy network upgrades and mitigate security vulnerabilities on the highest End of Life platforms that are not targeted to be replaced by a Consolidated Afloat Networks & Enterprise Services (CANES) system. These upgrades will mitigate known targeted cyber vulnerabilities and include eradication of old Windows Operating Systems, critical End of Life (EOL) firewalls and routers and improved anti-malware solutions. Legacy Network Cyber Resiliency/ORT will improve the networks ability to detect known and unknown vulnerabilities and attacks by upgrading sensor and monitoring technologies and accelerate post-attack containment and recovery. Starting in FY16, Legacy Network Cyber Resiliency/ORT transferred to LI 3050 from CANES/ORT under LI 2915.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications		P-1 Line Item Number / Title: 3050 / Ship Communications Automation
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0204163N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Command and Control Official Information eXchange (C2OIX) (formerly Tactical Messaging): C2OIX consolidates the Tactical Messaging and Defense Messaging System (DMS) programs and manages the Navy's messaging systems, providing sustainment support and modernization for all afloat and shore platforms. The modernization effort within C2OIX for afloat platforms replaces older Naval Modular Automated Communication System (NAVMACS) that lacked adherence to current cyber security requirements. It also automates and increases the speed and efficiency of handling organizational message traffic aboard ships and submarines, as well as replaces ten NAVMACS variants distributed throughout the Navy. The shore component of C2OIX Project is the IP-based C2OIX Shore system. C2OIX will virtualize all Government Official Information Exchange System (GOES) software suites on the NIPR and SIPR enclaves at the NAVAL Computer Telecommunication Area Master Stations (NCTAMS) PAC and NCTAMS LANT. C2OIX shore and afloat will satisfy the Navy messaging requirements and implement products that are developed with an open system architecture.</p> <p>Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching): STACC provides expansion of Enterprise Network Management System (ENMS), Internet Protocol (IP) services, transport via the Navy Tactical Wide Area Network (NTWAN) to additional customers, Virtual Secure Enclave (VSE), Combined Enterprise Regional Information Exchange System Maritime (CENTRIXS-M) ashore, Sensitive Compartmented Information Network Operations Center (SCI NOC), enclave expansion, hardening of networks in support of the ORT cyber resiliency plan to strengthen the Command and Control (C2) of Cyber Operations. STACC will reduce the Navy's dependency on legacy serial transport by migrating to an IP based interoperable capability interfacing Navy forces to Joint and coalition partners. STACC provides direct access for Tactical users through the Navy Regional Network Operations and Security Centers to Global Information Grid (GIG) for application data exchange. STACC reduces system complexity and standardizes on a common hardware platform. STACC provides the mechanism for dynamic managed real time information assurance, security and vulnerability mitigation within the Navy shore regions. Additionally, STACC provides quality of service enabled traffic flow prioritization and fully automated real-time bandwidth management to maximize the use of joint infrastructures. STACC will maximize the Defense Information Systems Network Core for unified Navy transport, allowing for route diversification and distributed joint services allowing access anywhere via distributed services. FY17-21 funding for VSE realigned from BLI 3415, Information System Security (ISSP), where prior year to FY16 funding still resides.</p>		

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications

P-1 Line Item Number / Title:
3050 / Ship Communications Automation

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0204163N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Ship Communications Automation	P-5a		- / 0.000	- / -	- / 5.500	- / 2.900	- / -	- / 2.900
P-3a	1 / PQ065 Command and Control Official Information eXchange (C2OIX) (TBD)			- / 152.506	- / 3.981	- / 4.197	- / 3.551	- / -	- / 3.551
P-3a	2 / PQ069 Automated Digital Network System (ADNS) - Afloat (TBD)			- / 0.000	- / -	- / 47.895	- / 41.372	- / -	- / 41.372
P-3a	3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) (TBD)			- / 253.275	- / 16.849	- / 20.885	- / 26.685	- / -	- / 26.685
P-3a	4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) (TBD)			- / 0.000	- / -	- / 30.000	- / 27.971	- / -	- / 27.971
P-40	Total Gross/Weapon System Cost			- / 405.781	- / 20.830	- / 108.477	- / 102.479	- / -	- / 102.479

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Ship Communications Automation	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / PQ065 Command and Control Official Information eXchange (C2OIX) (TBD)			- / 3.506	- / 4.596	- / 4.691	- / 4.788	Continuing	Continuing
P-3a	2 / PQ069 Automated Digital Network System (ADNS) - Afloat (TBD)			- / 45.763	- / 53.328	- / 53.981	- / 55.167	Continuing	Continuing
P-3a	3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) (TBD)			- / 18.106	- / 17.321	- / 18.482	- / 18.343	Continuing	Continuing
P-3a	4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT) (TBD)			- / 0.294	- / -	- / -	- / -	- / -	- / 58.265
P-40	Total Gross/Weapon System Cost			- / 70.569	- / 78.145	- / 80.054	- / 81.198	Continuing	Continuing

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

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

Justification:
In FY 2017, ADNS funds are for the procurement of (23) INC III Afloat units, (31) INC III Afloat Technical Insertion units, (4) Ashore INC I/INC II units, and (6) Ashore INC III units, with integration, and associated costs for pre-installation design. In addition, the FY17 ADNS investment will fund installation of (21) INC III Afloat units, (31) INC III Afloat Technical Insertion units, (4) Ashore INC I/INC II units, and (6) Ashore INC III units.

In FY 2017, Legacy Network Cyber Resiliency/ORT funds are for the procurement of (35) Legacy Network Afloat ORT units and (2) Legacy Network Ashore ORT units. In addition, the FY17 Legacy Network ORT funds are for the installation of (33) Legacy Network Afloat ORT units and (2) Legacy Network Ashore ORT units.

In FY 2017, C2OIX will fund equipment procurements and installations.

In FY 2017, Shore Tactical Assured Command and Control (STACC) ashore will engineer, integrate, procure, and install hardware and software to transform legacy serial transport to an IP environment; expand IP services to include application hosting services and expanded storage capability; and enhance Network Operations monitoring and management and ORT cyber remediation solutions to detect, deter and mitigate network threats.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Item Number / Title [DODIC]: 1 / Ship Communications Automation

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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	-	5.500	2.900	-	2.900
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	5.500	2.900	-	2.900
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	5.500	2.900	-	2.900

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II ^(†) (1)	-	-	0.000	-	-	-	100.000	4	0.400	100.000	4	0.400	-	-	-	100.000	4	0.400
1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III ^(†) (2)	-	-	0.000	-	6	-	850.000	6	5.100	416.667	6	2.500	-	-	-	416.667	6	2.500
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	5.500	-	-	2.900	-	-	-	-	-	2.900
<i>Subtotal: Hardware Cost</i>	-	-	0.000	-	-	-	-	-	5.500	-	-	2.900	-	-	-	-	-	2.900
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	5.500	-	-	2.900	-	-	-	-	-	2.900

Remarks:

ADNS Ashore/ Network Operations Center (NOC)

(†) indicates the presence of a P-5a

Footnotes:

(1) Tech refresh is required to field hardware to address End of Life issues at (4) ADNS Network Operation Centers (NOC): NCTS Bahrain, NCTAMS EURCENT, NCTAMS LANT, and NCTAMS PAC sites. Prior to FY13 Automated Digital Network System (ADNS) funding resides in BLI 3050. FY13-15 funding resides in BLI 2915. Starting in FY16, funding was realigned back into BLI 3050 for Major Automated Information System (MAIS) transparency compliance.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Item Number / Title [DODIC]: 1 / Ship Communications Automation
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>⁽²⁾ - FY15 Procurement quantity (6) were procured under BLI 2915, therefore BLI 3050 FY15 procurement cost is \$0.00. The associated installation in FY16 is funded under BLI 3050. - FY16 procurement unit cost is higher due to increased scope for two major upgrades done at NCTS Bahrain and NCTAMS EURCENT. -FY17-21 procurement quantities represent minor tech refreshes at 6 sites that include 2 Broadcast Control Authority and 4 NOCs (NCTS Bahrain, NCTAMS EURCENT, NCTAMS LANT, and NCTAMS PAC). - INC III Ashore units require 3 months integration, assembly, testing and shipping after delivery, prior to installation start. Installs do not begin until 10 months after procurement contract award (7 months production lead time + 3 months integration).</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Item Number / Title [DODIC]: 1 / Ship Communications Automation
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II		2016	SAIC / San Diego, CA	C / IDIQ	SPAWAR	Nov 2015	Mar 2016	4	100.000	Y		
1.1.1) Automated Digital Network System (ADNS) - Ashore - INC I&II		2017	SAIC / San Diego, CA	C / IDIQ	SPAWAR	Nov 2016	Mar 2017	4	100.000	Y		
1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III		2015	SERCO, INC. / San Diego, CA	C / FFP	SPAWAR	Nov 2014	Sep 2015	6	-	Y		
1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III		2016	SERCO, INC. / San Diego, CA	C / FFP	SPAWAR	Nov 2015	Sep 2016	6	850.000	Y		
1.1.2) Automated Digital Network System (ADNS) - Ashore - INC III		2017	SERCO, INC. / San Diego, CA	C / FFP	SPAWAR	Nov 2016	Sep 2017	6	416.667	Y		

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Exhibit P-3a, Individual Modification: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3050 / Ship Communications Automation				Modification Number / Title: 1 / PQ065 Command and Control Official Information eXchange (C2OIX)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	152.506	3.981	4.197	3.551	-	3.551	3.506	4.596	4.691	4.788	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	152.506	3.981	4.197	3.551	-	3.551	3.506	4.596	4.691	4.788	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	152.506	3.981	4.197	3.551	-	3.551	3.506	4.596	4.691	4.788	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Command and Control Official Information eXchange (C2OIX) (formerly Tactical Messaging): C2OIX consolidates the Tactical Messaging and Defense Messaging System (DMS) programs and manages the Navy's messaging systems, providing sustainment support and modernization for all afloat and shore platforms. The modernization effort within C2OIX for afloat platforms replaces older Naval Modular Automated Communication System (NAVMACS) that lacked adherence to current cyber security requirements. It also automates and increases the speed and efficiency of handling organizational message traffic aboard ships and submarines, as well as replaces ten NAVMACS variants distributed throughout the Navy. The shore component of C2OIX Project is the IP-based C2OIX Shore system. C2OIX will virtualize all Government Official Information Exchange System (GOES) software suites on the NIPR and SIPR enclaves at the NAVAL Computer Telecommunication Area Master Stations (NCTAMS) PAC and NCTAMS LANT. C2OIX shore and afloat will satisfy the Navy messaging requirements and implement products that are developed with an open system architecture.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11					P-1 Line Item Number / Title: 3050 / Ship Communications Automation					Modification Number / Title: 1 / PQ065 Command and Control Official Information eXchange (C2OIX)			
Models of Systems Affected: Tactical Messaging / C2OIX / NAVMACS					Modification Type: TBD					Related RDT&E PEs:			
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: PQ065 Command and Control Official Information eXchange (C2OIX)</i>													
B Kits													
Recurring													
1.1.1) Equipment Prior Year Sunk - NonOrganic	233 / 93.506	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	233 / 93.506	
1.1.2) Tactical Messaging Tech Refresh - NonOrganic	3 / 1.850	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.850	
1.1.3) C2OIX Equipment (Afloat) - NonOrganic ⁽³⁾	23 / 5.212	7 / 1.801	9 / 1.880	10 / 2.088	- / -	10 / 2.088	8 / 1.696	10 / 2.159	11 / 2.202	10 / 2.163	Continuing	Continuing	
1.1.4) C2OIX Equipment (Ashore) - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.190	- / -	2 / 0.190	
<i>Subtotal: Recurring</i>	<i>- / 100.568</i>	<i>- / 1.801</i>	<i>- / 1.880</i>	<i>- / 2.088</i>	<i>- / -</i>	<i>- / 2.088</i>	<i>- / 1.696</i>	<i>- / 2.159</i>	<i>- / 2.202</i>	<i>- / 2.353</i>	<i>Continuing</i>	<i>Continuing</i>	
Non-Recurring													
1.2.1) Non-Recurring Equipment - Organic	1 / 1.982	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.982	
<i>Subtotal: Non-Recurring</i>	<i>- / 1.982</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 1.982</i>	
<i>Subtotal: PQ065 Command and Control Official Information eXchange (C2OIX)</i>	<i>260 / 102.550</i>	<i>7 / 1.801</i>	<i>9 / 1.880</i>	<i>10 / 2.088</i>	<i>- / -</i>	<i>10 / 2.088</i>	<i>8 / 1.696</i>	<i>10 / 2.159</i>	<i>11 / 2.202</i>	<i>12 / 2.353</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 102.550</i>	<i>- / 1.801</i>	<i>- / 1.880</i>	<i>- / 2.088</i>	<i>- / -</i>	<i>- / 2.088</i>	<i>- / 1.696</i>	<i>- / 2.159</i>	<i>- / 2.202</i>	<i>- / 2.353</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
2.1) Production Support	- / 8.317	- / 0.113	- / 0.118	- / 0.065	- / -	- / 0.065	- / 0.140	- / 0.136	- / 0.140	- / 0.085	Continuing	Continuing	
2.2) DSA	- / 5.901	- / 0.624	- / 0.765	- / 0.285	- / -	- / 0.285	- / 0.378	- / 0.712	- / 0.726	- / 0.599	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 14.218</i>	<i>- / 0.737</i>	<i>- / 0.883</i>	<i>- / 0.350</i>	<i>- / -</i>	<i>- / 0.350</i>	<i>- / 0.518</i>	<i>- / 0.848</i>	<i>- / 0.866</i>	<i>- / 0.684</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: PQ065 Command and Control Official Information eXchange (C2OIX)</i>	<i>- / 35.738</i>	<i>- / 1.443</i>	<i>- / 1.434</i>	<i>- / 1.113</i>	<i>- / -</i>	<i>- / 1.113</i>	<i>- / 1.292</i>	<i>- / 1.589</i>	<i>- / 1.623</i>	<i>- / 1.751</i>	Continuing	Continuing	
<i>Subtotal: Installation</i>	<i>- / 35.738</i>	<i>- / 1.443</i>	<i>- / 1.434</i>	<i>- / 1.113</i>	<i>- / -</i>	<i>- / 1.113</i>	<i>- / 1.292</i>	<i>- / 1.589</i>	<i>- / 1.623</i>	<i>- / 1.751</i>	<i>Continuing</i>	<i>Continuing</i>	
Total													
Total Cost (Procurement + Support + Installation)	152.506	3.981	4.197	3.551	-	3.551	3.506	4.596	4.691	4.788	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 1 / PQ065 Command and Control Official Information eXchange (C2OIX)

Modification Item 1 of 1: PQ065 Command and Control Official Information eXchange (C2OIX)

Manufacturer Information

Manufacturer Name: General Dynamics	Manufacturer Location: Taunton, MA
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 1

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Jan 2015	Jan 2016	Jan 2017				

Installation Information

Method of Implementation: Method:: Installation Name: Installation of Equipment - C2OIX Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	259 / 35.738	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	259 / 35.738
FY 2015	- / -	7 / 1.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 1.443
FY 2016	- / -	- / -	9 / 1.434	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.434
FY 2017	- / -	- / -	- / -	10 / 1.113	- / -	10 / 1.113	- / -	- / -	- / -	- / -	- / -	10 / 1.113
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	8 / 1.292	- / -	- / -	- / -	- / -	8 / 1.292
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 1.589	- / -	- / -	- / -	10 / 1.589
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 1.623	- / -	- / -	11 / 1.623
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 1.751	- / -	12 / 1.751
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	259 / 35.738	7 / 1.443	9 / 1.434	10 / 1.113	- / -	10 / 1.113	8 / 1.292	10 / 1.589	11 / 1.623	12 / 1.751	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	257	2	2	2	2	1	-	1	7	1	4	1	3	2	3	3	2	-	4	3	3	-	4	4	3	-	5	4	3	Cont.	Cont.
Out	257	2	2	2	2	1	-	1	7	1	4	1	3	2	3	3	2	-	4	3	3	-	4	4	3	-	5	4	3	Cont.	Cont.

Method of Implementation (Organic): Non-Recurring Equipment - Not Installed **Installation Quantity:** 1

Footnotes:

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 1 / PQ065 Command and Control Official Information eXchange (C2OIX)

⁽³⁾ 1) First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability. 2) FY16-FY21 Decrease in installation costs is due to combined installation with CANES.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3050 / Ship Communications Automation				Modification Number / Title: 2 / PQ069 Automated Digital Network System (ADNS) - Afloat				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	47.895	41.372	-	41.372	45.763	53.328	53.981	55.167	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	47.895	41.372	-	41.372	45.763	53.328	53.981	55.167	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	47.895	41.372	-	41.372	45.763	53.328	53.981	55.167	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

ADNS is the gateway to the tactical Wide Area Network (WAN) afloat for Internet Protocol (IP) network operations, supporting information dissemination and external connectivity. ADNS allows services and applications to interconnect to the Defense Information Systems Network (DISN) ashore via multiple Radio Frequency (RF) resources and pier connectivity.

[Automated Digital Network System (ADNS) - Afloat- INC III] ADNS is the gateway to tactical Wide Area Network (WAN) afloat for Internet Protocol (IP) network operations, supporting information dissemination and external connectivity. ADNS provides the only Quality and Class of Service (QoS/CoS) routing for Multi-Service Voice, Video, and Data domains across available Radio Frequency (RF) paths.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11					P-1 Line Item Number / Title: 3050 / Ship Communications Automation					Modification Number / Title: 2 / PQ069 Automated Digital Network System (ADNS) - Afloat			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs: 0204163N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> PQ069 Automated Digital Network System (ADNS) - Afloat													
B Kits													
Recurring													
1.1.1) Automated Digital Network System (ADNS) - Afloat- INC III - NonOrganic ⁽⁴⁾	- / -	27 / -	21 / 25.595	23 / 24.646	- / -	23 / 24.646	25 / 27.375	31 / 34.138	30 / 34.281	30 / 34.307	Continuing	Continuing	
1.1.2) ADNS Tech Insertions - NonOrganic ⁽⁵⁾	- / -	- / -	23 / 4.284	31 / 3.590	- / -	31 / 3.590	37 / 4.500	39 / 4.900	40 / 5.100	32 / 3.005	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 29.879	- / 28.236	- / -	- / 28.236	- / 31.875	- / 39.038	- / 39.381	- / 37.312	Continuing	Continuing	
<i>Subtotal: PQ069 Automated Digital Network System (ADNS) - Afloat</i>	- / -	27 / -	44 / 29.879	54 / 28.236	- / -	54 / 28.236	62 / 31.875	70 / 39.038	70 / 39.381	62 / 37.312	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 29.879	- / 28.236	- / -	- / 28.236	- / 31.875	- / 39.038	- / 39.381	- / 37.312	Continuing	Continuing	
Support (All Modification Items)													
2.1) ADNS - Production Support	- / -	- / -	- / 1.500	- / 1.440	- / -	- / 1.440	- / 1.609	- / 1.913	- / 1.933	- / 1.933	Continuing	Continuing	
2.2) ADNS - DSA	- / -	- / -	- / 1.968	- / 1.841	- / -	- / 1.841	- / 2.122	- / 1.766	- / 2.347	- / 2.758	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / -	- / 3.468	- / 3.281	- / -	- / 3.281	- / 3.731	- / 3.679	- / 4.280	- / 4.691	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> PQ069 Automated Digital Network System (ADNS) - Afloat	- / 0.000	- / -	- / 14.548	- / 9.855	- / -	- / 9.855	- / 10.157	- / 10.611	- / 10.320	- / 13.164	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 14.548	- / 9.855	- / -	- / 9.855	- / 10.157	- / 10.611	- / 10.320	- / 13.164	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	47.895	41.372	-	41.372	45.763	53.328	53.981	55.167	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 2 / PQ069 Automated Digital Network System (ADNS) - Afloat

Modification Item 1 of 1: PQ069 Automated Digital Network System (ADNS) - Afloat

Manufacturer Information

Manufacturer Name: SERCO, INC.	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 7

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Nov 2015	Nov 2016				
Delivery Dates		Jun 2016	Jun 2017				

Manufacturer Name: SSC PAC-- San Diego, CA	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Nov 2015	Nov 2016				
Delivery Dates		Jan 2016	Jan 2017				

Manufacturer Name: SSC PAC-- San Diego, CA	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 7

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Nov 2015	Nov 2016				
Delivery Dates		Jun 2016	Jun 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Automated Digital Network System (ADNS) - Afloat- INC III

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	26 / 10.440	1 / 0.329	- / -	1 / 0.329	- / -	- / -	- / -	- / -	- / -	27 / 10.769
FY 2016	- / -	- / -	7 / 3.293	14 / 6.223	- / -	14 / 6.223	- / -	- / -	- / -	- / -	- / -	21 / 9.516
FY 2017	- / -	- / -	- / -	6 / 2.242	- / -	6 / 2.242	17 / 6.128	- / -	- / -	- / -	- / -	23 / 8.370
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.891	16 / 6.025	- / -	- / -	- / -	25 / 8.916
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 3.338	22 / 7.107	- / -	- / -	31 / 10.445
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.941	25 / 7.741	- / -	30 / 9.682
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 4.583	17 / -	30 / 4.583
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	33 / 13.733	21 / 8.794	- / -	21 / 8.794	26 / 9.019	25 / 9.363	27 / 9.048	38 / 12.324	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 2 / PQ069 Automated Digital Network System (ADNS) - Afloat

Modification Item 1 of 1: PQ069 Automated Digital Network System (ADNS) - Afloat

Installation Information

Method of Implementation: [none specified]:: Installation Name: Automated Digital Network System (ADNS) - Afloat- INC III

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	8	6	12	7	7	3	5	6	9	7	1	9	7	4	5	9	5	9	8	5	11	9	10	Cont.	Cont.
Out	-	-	-	-	-	-	2	8	9	11	8	4	3	3	11	6	6	1	14	2	6	7	6	8	7	8	10	8	8	Cont.	Cont.

Method of Implementation: [none specified]:: Installation Name: ADNS Tech Insertions

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	23 / 0.815	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	23 / 0.815
FY 2017	- / -	- / -	- / -	31 / 1.061	- / -	31 / 1.061	- / -	- / -	- / -	- / -	- / -	31 / 1.061
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	37 / 1.138	- / -	- / -	- / -	- / -	37 / 1.138
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	39 / 1.248	- / -	- / -	- / -	39 / 1.248
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	40 / 1.272	- / -	- / -	40 / 1.272
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	32 / 0.840	- / -	32 / 0.840
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	23 / 0.815	31 / 1.061	- / -	31 / 1.061	37 / 1.138	39 / 1.248	40 / 1.272	32 / 0.840	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	-	-	-	9	8	6	15	6	7	3	14	7	13	3	18	7	10	4	18	9	8	5	10	2	10	Cont.	Cont.
Out	-	-	-	-	-	-	-	6	3	9	14	9	7	4	8	14	5	10	16	8	7	7	14	10	14	4	5	7	1	Cont.	Cont.

Footnotes:

⁽⁴⁾ ADNS INC III Afloat procurement cost range: \$0.5M - \$1.5M; installation cost range: \$0.3M - \$1.0M. INC III units require 3 months integration, assembly, testing and shipping after delivery, prior to installation start. Installs do not begin until 10 months after procurement contract award (7 months production lead time + 3 months integration). First quarter installations reflected in the Installation Schedule are funded in the prior year to meet the requirement to fund installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to provide sufficient time for the contractor to develop the work schedule, order material, and perform necessary fabrication. This process allows installations to be scheduled in the first quarter thereby supporting Fleet availability. FY15 Procurement quantity (29) were

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 2 / PQ069 Automated Digital Network System (ADNS) - Afloat

procured under BLI 2915, therefore BLI 3050 FY15 procurement cost is \$0.00. The associated installation in FY15 (2) is funded under BLI 2915. Whereas, the remaining FY15 procurement installed in FY16 (26) and FY17 (1) is funded under BLI 3050. FY17 quantity (1) install availability was originally scheduled in FY16 when the unit was procured. Availability later moved into FY17. Prior to FY13 Automated Digital Network System (ADNS) funding resides in BLI 3050. FY13-15 funding resides in BLI 2915. Starting in FY16, funding was realigned back into BLI 3050 for Major Automated Information System (MAIS) transparency compliance.

⁽⁵⁾ FY17: Technical Insertions (TI) will be fielded to include hardware and software baseline updates to Afloat units required to maximize C4ISR capability and interface functionality between ADNS and applicable Satellite Communications (SATCOM) systems such as Navy Multi-Band Terminal(NMT), Global Broadcast System(GBS) and Battle Force Tactical Network (BFTN). TI require (1) month administrative lead time and (2) months production lead time.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3050 / Ship Communications Automation				Modification Number / Title: 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	253.275	16.849	20.885	26.685	-	26.685	18.106	17.321	18.482	18.343	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	253.275	16.849	20.885	26.685	-	26.685	18.106	17.321	18.482	18.343	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	253.275	16.849	20.885	26.685	-	26.685	18.106	17.321	18.482	18.343	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Shore Tactical Assured Command and Control has been structured to support the migration of the shore sites and their terrestrial interconnections into a coherent, scalable, network-centric capability.

[Equipment - Increment II] Shore Tactical Assured Command and Control (STACC), (formerly Tactical Switching): STACC provides expansion of Enterprise Network Management System (ENMS), Internet Protocol (IP) services, transport via the Navy Tactical Wide Area Network (NTWAN) to additional customers, Virtual Secure Enclave (VSE), Combined Enterprise Regional Information Exchange System Maritime (CENTRIXS-M) ashore, Sensitive Compartmented Information Network Operations Center (SCI NOC), enclave expansion, hardening of networks in support of the Operation Rolling Tide (ORT) cyber resiliency plan to strengthen the Command and Control (C2) of Cyber Operations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11					P-1 Line Item Number / Title: 3050 / Ship Communications Automation					Modification Number / Title: 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)</i>													
B Kits													
Recurring													
1.1.1) Equipment - Increment I - NonOrganic	10 / 33.814	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 33.814	
1.1.2) Equipment - Increment II - NonOrganic ⁽⁶⁾	40 / 165.443	5 / 13.508	5 / 16.744	5 / 21.372	- / -	5 / 21.372	5 / 14.512	5 / 13.877	5 / 14.806	5 / 14.693	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 199.257</i>	<i>- / 13.508</i>	<i>- / 16.744</i>	<i>- / 21.372</i>	<i>- / -</i>	<i>- / 21.372</i>	<i>- / 14.512</i>	<i>- / 13.877</i>	<i>- / 14.806</i>	<i>- / 14.693</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)</i>	<i>50 / 199.257</i>	<i>5 / 13.508</i>	<i>5 / 16.744</i>	<i>5 / 21.372</i>	<i>- / -</i>	<i>5 / 21.372</i>	<i>5 / 14.512</i>	<i>5 / 13.877</i>	<i>5 / 14.806</i>	<i>5 / 14.693</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 199.257</i>	<i>- / 13.508</i>	<i>- / 16.744</i>	<i>- / 21.372</i>	<i>- / -</i>	<i>- / 21.372</i>	<i>- / 14.512</i>	<i>- / 13.877</i>	<i>- / 14.806</i>	<i>- / 14.693</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
2.1) DSA	- / 1.946	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.946	
2.2) Production Support	- / 16.905	- / 0.810	- / 1.010	- / 1.313	- / -	- / 1.313	- / 0.881	- / 0.839	- / 0.898	- / 0.891	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 18.851</i>	<i>- / 0.810</i>	<i>- / 1.010</i>	<i>- / 1.313</i>	<i>- / -</i>	<i>- / 1.313</i>	<i>- / 0.881</i>	<i>- / 0.839</i>	<i>- / 0.898</i>	<i>- / 0.891</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)</i>	<i>- / 35.167</i>	<i>- / 2.531</i>	<i>- / 3.131</i>	<i>- / 4.000</i>	<i>- / -</i>	<i>- / 4.000</i>	<i>- / 2.713</i>	<i>- / 2.605</i>	<i>- / 2.778</i>	<i>- / 2.759</i>	Continuing	Continuing	
<i>Subtotal: Installation</i>	<i>- / 35.167</i>	<i>- / 2.531</i>	<i>- / 3.131</i>	<i>- / 4.000</i>	<i>- / -</i>	<i>- / 4.000</i>	<i>- / 2.713</i>	<i>- / 2.605</i>	<i>- / 2.778</i>	<i>- / 2.759</i>	<i>Continuing</i>	<i>Continuing</i>	
Total													
Total Cost (Procurement + Support + Installation)	253.275	16.849	20.885	26.685	-	26.685	18.106	17.321	18.482	18.343	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)

Modification Item 1 of 1: PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)

Manufacturer Information

Manufacturer Name: SSC LANT	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016	Mar 2017				
Delivery Dates	May 2015	May 2016	May 2017				

Installation Information

Method of Implementation: Method:: Installation Name: Installation of Equipment - Tactical Switching

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	50 / 35.167	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	50 / 35.167
FY 2015	- / -	5 / 2.531	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.531
FY 2016	- / -	- / -	5 / 3.131	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 3.131
FY 2017	- / -	- / -	- / -	5 / 4.000	- / -	5 / 4.000	- / -	- / -	- / -	- / -	- / -	5 / 4.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.713	- / -	- / -	- / -	- / -	5 / 2.713
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.605	- / -	- / -	- / -	5 / 2.605
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.778	- / -	- / -	5 / 2.778
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.759	- / -	5 / 2.759
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	50 / 35.167	5 / 2.531	5 / 3.131	5 / 4.000	- / -	5 / 4.000	5 / 2.713	5 / 2.605	5 / 2.778	5 / 2.759	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot						
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
In	50	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	Cont.	Cont.
Out	50	-	-	-	5	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	-	-	-	5	-	Cont.	Cont.

Footnotes:

⁽⁶⁾ Increment II quantities represent 5 major shore regions (Naval Computer and Telecommunications Area Master Station Pacific (NCTAMS PAC), Naval Computer and Telecommunications Area Master Station Atlantic (NCTAMS LANT), Naval Computer & Telecommunications Station Naples (NCTS NAPLES), Naval Computer & Telecommunications Station Bahrain (NCTS Bahrain), and Naval Computer & Telecommunications Station San Diego (NCTS San Diego) with a total of 40+ shore communication activities spanning the 5 regions. Increment II upgrades will be implemented at the major shore regions

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 3 / PQ070 Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching)

consolidating into Global Network Operations and Security Centers, upgrading Transport, IP Services, and NetOps, leveraging other Department of the Navy (DoN) and Department of Defense (DoD) infrastructure initiatives for DoN/DoD Information Technology consolidation. Shore Tactical Assured Command and Control (STACC) (formerly Tactical Switching) consists of 20 different systems incorporated into a consolidated single enterprise architecture. Installation costs vary each year/site depending on what modernization must be done at each site. Costs vary depending upon whether or not installs address increased bandwidth, risk vulnerabilities, increased survivability and reliability, fleet requirements and migration to an all-Internet Protocol (IP) architecture. FY17 unit cost increase is due to initial surge for technical refresh of Virtual Secure Enclave (VSE) at all 5 major shore regions, technical refresh of Sensitive Compartmented Information Network Operations Center (SCI NOC) in the NCTAMS LANT and NCTAMS PAC regions as well as technical refresh and expansion of Combined Enterprise Regional Information Exchange System - Maritime (CENTRIXS-M) ashore at the NCTAMS PAC region.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3050 / Ship Communications Automation				Modification Number / Title: 4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	-	30.000	27.971	-	27.971	0.294	-	-	-	-	58.265
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	30.000	27.971	-	27.971	0.294	-	-	-	-	58.265
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	30.000	27.971	-	27.971	0.294	-	-	-	-	58.265
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT): ORT is a Navy-wide cyber remediation effort to secure government databases and improve the overall security protocols for Navy computer networks. Specifically, Legacy Network Cyber Resiliency/ORT will fund planned legacy network upgrades and mitigate security vulnerabilities on the highest End of Life platforms that are not targeted to be replaced by a Consolidated Afloat Networks & Enterprise Services (CANES) system. These upgrades will mitigate known targeted cyber vulnerabilities and include eradication of old Windows Operating Systems, critical End of Life (EOL) firewalls and routers and improved anti-malware solutions. Legacy Network Cyber Resiliency/ORT will improve the networks ability to detect known and unknown vulnerabilities and attacks by upgrading sensor and monitoring technologies and accelerate post-attack containment and recovery. Starting in FY16, Legacy Network Cyber Resiliency/ORT transferred to LI 3050 from CANES/ORT under LI 2915.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11				P-1 Line Item Number / Title: 3050 / Ship Communications Automation						Modification Number / Title: 4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)</i>													
B Kits													
Recurring													
1.1.1) Legacy Network Cyber Resiliency/ORT Afloat - Equipment - NonOrganic ⁽⁷⁾	1 / 0.000	34 / -	8 / 14.030	35 / 15.791	- / -	35 / 15.791	- / -	- / -	- / -	- / -	- / -	78 / 29.821	
1.1.2) Legacy Network Cyber Resiliency/ORT Ashore - Equipment - NonOrganic	- / -	- / -	1 / 0.085	2 / 0.170	- / -	2 / 0.170	- / -	- / -	- / -	- / -	- / -	3 / 0.255	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 14.115</i>	<i>- / 15.961</i>	<i>- / -</i>	<i>- / 15.961</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 30.076</i>	
<i>Subtotal: PQ071 Legacy Network Cyber Resiliency/ Operation Rolling Tide (ORT)</i>	<i>1 / 0.000</i>	<i>34 / -</i>	<i>9 / 14.115</i>	<i>37 / 15.961</i>	<i>- / -</i>	<i>37 / 15.961</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>81 / 30.076</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 14.115</i>	<i>- / 15.961</i>	<i>- / -</i>	<i>- / 15.961</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 30.076</i>	
Support (All Modification Items)													
2.1) Legacy Network Cyber Resiliency/ORT - DSA	- / -	- / -	- / 0.500	- / 0.400	- / -	- / 0.400	- / 0.014	- / -	- / -	- / -	- / -	- / 0.914	
<i>Subtotal: Support</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 0.500</i>	<i>- / 0.400</i>	<i>- / -</i>	<i>- / 0.400</i>	<i>- / 0.014</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 0.914</i>	
Installation													
<i>Modification Item 1 of 1: PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 15.385</i>	<i>- / 11.610</i>	<i>- / -</i>	<i>- / 11.610</i>	<i>- / 0.280</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 27.275</i>	
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / -</i>	<i>- / 15.385</i>	<i>- / 11.610</i>	<i>- / -</i>	<i>- / 11.610</i>	<i>- / 0.280</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / -</i>	<i>- / 27.275</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	30.000	27.971	-	27.971	0.294	-	-	-	-	58.265	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)

Modification Item 1 of 1: PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)

Manufacturer Information

Manufacturer Name: SSC LANT	Manufacturer Location: SSC LANT
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Dec 2015	Dec 2016				
Delivery Dates		Mar 2016	Mar 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Legacy Network Cyber Resiliency/ORT Afloat - Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	1 / 0.415	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.415
FY 2015	- / -	- / -	34 / 11.526	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 11.526
FY 2016	- / -	- / -	8 / 3.314	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 3.314
FY 2017	- / -	- / -	- / -	33 / 11.350	- / -	33 / 11.350	2 / 0.280	- / -	- / -	- / -	- / -	35 / 11.630
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	43 / 15.255	33 / 11.350	- / -	33 / 11.350	2 / 0.280	- / -	- / -	- / -	- / -	78 / 26.885

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	-	-	14	14	13	2	-	15	15	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78
Out	-	-	-	-	-	-	5	15	10	13	-	9	13	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	78

Method of Implementation: [none specified]:: Installation Name: Legacy Network Cyber Resiliency/ORT Ashore - Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3050 / Ship Communications Automation	Modification Number / Title: 4 / PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)

Modification Item 1 of 1: PQ071 Legacy Network Cyber Resiliency/Operation Rolling Tide (ORT)

Installation Information

Method of Implementation: [none specified]:: Installation Name: Legacy Network Cyber Resiliency/ORT Ashore - Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	1 / 0.130	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.130
FY 2017	- / -	- / -	- / -	2 / 0.260	- / -	2 / 0.260	- / -	- / -	- / -	- / -	- / -	2 / 0.260
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	1 / 0.130	2 / 0.260	- / -	2 / 0.260	- / -	- / -	- / -	- / -	- / -	3 / 0.390

Installation Schedule

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

Footnotes:

(7) Prior Year Procurement quantities (1) for FY14 and (34) for FY15 were procured under BLI 2915, therefore BLI 3050 FY15 procurement cost is \$0.00. The associated installations in FY16 (35) are funded under BLI 3050. First quarter installations reflected in the Installation Schedule are funded in the prior year in order to be able to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. This procedure allows installations to be scheduled in the first quarter thereby supporting Fleet availability. Average unit cost fluctuations are attributable to variances in system configuration requirements among platforms. Legacy Network ORT FY17 average procurement unit costs are lower than FY16 as the majority of the procurements apply to smaller deck unit level platforms (LPD/PC/MCM/SSN/SSBN/SSGN) while FY16 procurements included larger deck unit level platforms (AS/CG/DDG/LHD/LSD). The average procurement unit cost for larger deck unit level platforms range: \$.6M-\$3.1M. Smaller deck unit level platforms range: \$.1M-\$3M. Installation cost fluctuations are attributed to and dependent on class, level of the platform, variant of predecessor system the hull currently has installed, geographic location of the installation, and length of the availability. Installation cost range: \$.1M - \$2.8M.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications	P-1 Line Item Number / Title: 3057 / Communications Items under \$5M
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604280N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	100.842	14.145	16.613	10.403	-	10.403	17.631	7.685	7.854	8.012	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	100.842	14.145	16.613	10.403	-	10.403	17.631	7.685	7.854	8.012	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	100.842	14.145	16.613	10.403	-	10.403	17.631	7.685	7.854	8.012	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.699	0.513	0.024	-	0.024	0.059	0.008	0.052	-	-	1.355
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Communications Items under \$5M by \$0.6M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

[P5 / NU019 EPLRS-DR]: Enhanced Position Location Reporting System - Data Radio (EPLRS-DR) is a Blue in Support of Green (BISOG) program that provides secure Anti-Jam (AJ), Ultra High Frequency (UHF) (420-450 MHz) and Line of Sight (LOS) data communications in support of amphibious operations at throughputs of up to 54Kbps. EPLRS-DR provides embedded Position Location Information (PLI) between shipboard networks and the shore-based Marine Tactical Data Network (TDN) and the Army Tactical Internet (TI). To meet a National Security Agency (NSA) mandate, KOK13 cryptographic equipment will be replaced with KOK23/Combat Key Generator (CKG) cryptographic equipment. The Army Navy (AN)/Portable Radio Communication (PRC) 117G integration will provide the embarked United States Marine Corps (USMC) landing force with ANW2 Wideband Tactical Radio Communications capability as well as the interoperability between the existing EPLRS-DR radio network with AN/PRC-117G ANW2 tactical radio network.

The Conical Log Spiral Mobile (CLSM) antenna is a component of the USMC Enhanced Man-Pack UHP Tactical (EMUT) Satellite Antenna providing embarked marines with a stand alone Ultra High Frequency Satellite Communications (UHF SATCOM) system.

[P5 / NU239 PORT NSW]: Portable Radio/Naval Special Warfare (PORT NSW) tactical radio: PORT NSW procures hand held and man pack/vehicular radios for NSW. Procurement needed to support Force Protection operations, especially with joint forces. NSW operational elements (SEAL platoons and Combatant Craft Detachments) rely on tactical communications and electronics equipment to accomplish all missions assigned in support of the Joint and Fleet commanders. Navy resourced tactical communications equipment is considered mission essential and will be employed by individual SEAL personnel and NSW combat elements in man pack configurations as well as onboard tactical vehicles and NSW combatant craft in tactical operations centers in fixed mount configurations.

[P5 / NU245 HYDRA]: Hierarchical Yet Dynamic Reprogrammable Architecture (HYDRA): HYDRA AN/SRC-55 will replace stovepipe wireless shipboard systems with an integrated system. HYDRA is a wireless digital voice and data communication system using Commercial off the Shelf (COTS) trunking technology. HYDRA is capable of interfacing with Private Branch Exchange/Battle Group (PBX/BG) Cellular/radio frequency (RF) systems.

[P5 / NU295 BFTN]: Battle Force Tactical Network (BFTN): Provides National, Allied, and Coalition maritime units with a medium band Internet Protocol (IP) based, tactical ship to ship at-sea networking capability, using legacy half-duplex Ultra High Frequency (UHF) Line-of-Sight. The Battle Force Tactical Network Engineering Change (BFTN-ec) will also provide communications relays and network aware-automatic link establishment (NA-ALE) across battle groups and aircrafts extending the range of BFTN service levels in order to thwart contested satellite communications connectivity to shore servers.

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications		P-1 Line Item Number / Title: 3057 / Communications Items under \$5M
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604280N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Enhancements will enable the BFTN network to self-assemble Transmission Control Protocol/Internet Protocol (TCP/IP) delivery circuits, adapt to user proximity changes and self-heal data delivery circuits, if they are degraded or forcefully taken from the Afloat fighting forces.</p> <p>[P5 / NU790 Navy Expeditionary C4I]: Navy Expeditionary Command, Control, Communications, Computers, & Intelligence (C4I): Provides procurement and integration for outfitting Table of Allowance (TOA) buy lists within the Expeditionary forces. Ensures common C4I solutions are being coordinated, tracked, procured and integrated across Navy Expeditionary Combat Command (NECC) forces.</p> <p>[P5 / ESB SOF (BSO 24)]: Expeditionary Mobile Base Special Operations Forces (ESB SOF) - Funding procures identical sets of equipment to support SOF communications, consisting of a radio backbone infrastructure (total of 13 antennas) and increasing the bandwidth to support SOF missions.</p> <p>[P5 / HF SAR Installations FMP (Prior Years)]: High Frequency Shipboard Automatic Link Establishment Radio (HF SAR) [Previously known as High Frequency Automatic Link Establishment (HF-ALE)]: Provides 3G HF-ALE capabilities to the Embarked Marines aboard L-Class ships. HF SAR is a stand alone menu driven system providing voice, data and chat capabilities via Line of Sight (LOS) and Beyond Line of Sight (BLOS).</p>		

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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 02: Communications & Electronics Equip / BSA 11: Shipboard Communications	P-1 Line Item Number / Title: 3057 / Communications Items under \$5M
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604280N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Communications Items under \$5M	P-5a		- / 100.842	- / 14.145	- / 16.613	- / 10.403	- / -	- / 10.403
P-40	Total Gross/Weapon System Cost			- / 100.842	- / 14.145	- / 16.613	- / 10.403	- / -	- / 10.403

*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:
 NU239 - PORT NSW: FY17 funding is to procure 202 radios.
 NU295 - BFTN: FY17 funding is to procure 4 units.
 NU019 - Enhanced Position Location Reporting System - Data Radio (EPLRS-DR): FY17 funding is to procure 2 units.
 NU385 - Expeditionary Mobile Base Special Operations Forces (ESB SOF): FY17 funds will provide additional SOF capability on the ESB 3 and ESB 4.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3057 / Communications Items under \$5M	Item Number / Title [DODIC]: 1 / Communications Items under \$5M

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	100.842	14.145	16.613	10.403	-	10.403
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	100.842	14.145	16.613	10.403	-	10.403
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	100.842	14.145	16.613	10.403	-	10.403

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	0.699	0.513	0.024	-	0.024
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - NU019 EPLRS-DR Cost																		
Non Recurring Cost																		
1.1.1) EPLRS-DR Procurement ^(†) (1)	55.191	47	2.594	-	-	-	-	-	-	135.000	2	0.270	-	-	-	135.000	2	0.270
<i>Subtotal: Non Recurring Cost</i>	-	-	2.594	-	-	-	-	-	-	-	-	0.270	-	-	-	-	-	0.270
<i>Subtotal: Hardware - NU019 EPLRS-DR Cost</i>	-	-	2.594	-	-	-	-	-	-	-	-	0.270	-	-	-	-	-	0.270
Hardware - NU237 PORTABLE RADIOS (Prior Years) Cost																		
Recurring Cost																		
2.1.1) PORT RAD - Hand Held Procurement (Prior Years)	-	-	2.751	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	2.751	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - NU237 PORTABLE RADIOS (Prior Years) Cost</i>	-	-	2.751	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - NU239 PORT NSW Cost																		
Recurring Cost																		
3.1.1) PORT NSW Hand Held Procurement ^(†)	15.856	868	13.763	14.530	290	4.214	14.824	125	1.853	15.117	137	2.071	-	-	-	15.117	137	2.071

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11		P-1 Line Item Number / Title: 3057 / Communications Items under \$5M
		Item Number / Title [DODIC]: 1 / Communications Items under \$5M

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
3.1.2) PORT NSW Man Pack Procurement ^(†) (2)	35.181	878	30.889	35.892	146	5.240	36.610	43	1.574	37.350	65	2.428	-	-	-	37.350	65	2.428
<i>Subtotal: Recurring Cost</i>	-	-	44.652	-	-	9.454	-	-	3.427	-	-	4.499	-	-	-	-	-	4.499
<i>Subtotal: Hardware - NU239 PORT NSW Cost</i>	-	-	44.652	-	-	9.454	-	-	3.427	-	-	4.499	-	-	-	-	-	4.499
Hardware - NU245 HYDRA Cost																		
Non Recurring Cost																		
4.1.1) Hydra Procurement ^(†)	1,734.000	6	10.404	1,288.000	1	1.288	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	10.404	-	-	1.288	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - NU245 HYDRA Cost</i>	-	-	10.404	-	-	1.288	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - NU295 BFTN Cost																		
Recurring Cost																		
5.1.1) BFTN System Procurement ^(†)	201.214	14	2.817	229.500	2	0.459	234.000	5	1.170	238.778	4	0.955	-	-	-	238.778	4	0.955
<i>Subtotal: Recurring Cost</i>	-	-	2.817	-	-	0.459	-	-	1.170	-	-	0.955	-	-	-	-	-	0.955
<i>Subtotal: Hardware - NU295 BFTN Cost</i>	-	-	2.817	-	-	0.459	-	-	1.170	-	-	0.955	-	-	-	-	-	0.955
Hardware - NU790 Navy Expeditionary C4I Cost																		
Recurring Cost																		
6.1.1) Navy Expeditionary C4I Procurement ^(†)	250.000	6	1.500	282.667	3	0.848	279.333	3	0.838	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.500	-	-	0.848	-	-	0.838	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - NU790 Navy Expeditionary C4I Cost</i>	-	-	1.500	-	-	0.848	-	-	0.838	-	-	-	-	-	-	-	-	-
Hardware - NU260 DAMA IW - R (Prior Years) Cost																		
Recurring Cost																		
7.1.1) DAMA IW Procurement (Prior Years)	-	-	11.967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	11.967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - NU260 DAMA IW - R (Prior Years) Cost</i>	-	-	11.967	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - NU385 ESB SOF (BSO 24) Cost																		

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11						P-1 Line Item Number / Title: 3057 / Communications Items under \$5M						Item Number / Title [DODIC]: 1 / Communications Items under \$5M					

ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							
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Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Recurring Cost																		
8.1.1) ESB SOF (BSO 24) ⁽³⁾	-	-	-	-	-	-	-	-	8.030	-	-	0.677	-	-	-	-	-	0.677
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	8.030	-	-	0.677	-	-	-	-	-	0.677
<i>Subtotal: Hardware - NU385 ESB SOF (BSO 24) Cost</i>	-	-	-	-	-	-	-	-	8.030	-	-	0.677	-	-	-	-	-	0.677
Support - NU777 Installations FMP Cost																		
9.1) EPLRS-DR FMP	-	-	0.010	-	-	-	-	-	-	-	-	0.734	-	-	-	-	-	0.734
9.2) Hydra Installations FMP	-	-	3.491	-	-	0.565	-	-	-	-	-	-	-	-	-	-	-	-
9.3) HF SAR Installations FMP (Prior Years)	-	-	12.137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.4) BFTN Installations FMP	-	-	3.540	-	-	0.724	-	-	1.980	-	-	2.029	-	-	-	-	-	2.029
<i>Subtotal: Support - NU777 Installations FMP Cost</i>	-	-	19.178	-	-	1.289	-	-	1.980	-	-	2.763	-	-	-	-	-	2.763
Support - NU777 DSA Cost																		
10.1) EPLRS-DR DSA/ PRE Shore Installation Design	-	-	-	-	-	-	-	-	-	-	-	0.294	-	-	-	-	-	0.294
10.2) BFTN DSA	-	-	1.236	-	-	0.216	-	-	0.834	-	-	0.628	-	-	-	-	-	0.628
<i>Subtotal: Support - NU777 DSA Cost</i>	-	-	1.236	-	-	0.216	-	-	0.834	-	-	0.922	-	-	-	-	-	0.922
Support - NU555 Production Support Cost																		
11.1) EPLRS-DR Production Support	-	-	0.290	-	-	-	-	-	-	-	-	0.011	-	-	-	-	-	0.011
11.2) PORT NSW Production Support	-	-	2.372	-	-	0.535	-	-	0.220	-	-	0.212	-	-	-	-	-	0.212
11.3) BFTN Production Support	-	-	1.024	-	-	0.026	-	-	0.084	-	-	0.094	-	-	-	-	-	0.094
11.4) Navy Expeditionary C4I Production Support	-	-	0.057	-	-	0.030	-	-	0.030	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - NU555 Production Support Cost</i>	-	-	3.743	-	-	0.591	-	-	0.334	-	-	0.317	-	-	-	-	-	0.317
Gross/Weapon System Cost	-	-	100.842	-	-	14.145	-	-	16.613	-	-	10.403	-	-	-	-	-	10.403

(t) indicates the presence of a P-5a

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3057 / Communications Items under \$5M	Item Number / Title [DODIC]: 1 / Communications Items under \$5M
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>Footnotes:</p> <p>(1) Funding in FY17 - FY21 for Enhanced Position Location reporting System - Data Radio (EPLRS-DR) is required to prevent an obsolescence and interoperability issue between the Navy and Marine Corps by integrating the system with PRC-117G radios. This is accomplished by replacing an EPLRS-DR RT-1720 radio with an AN/VRC-114 Vehicle Radio Chassis housing 2 AN/PRC-117G radios and cables. This increases range of performance, improves Blue in Support of Green (BISOG) interoperability and re-establishes equipment configuration and operation between afloat and ashore units. Existing EPLRS-DR antennas, radio frequency (RF) cables, racks, power, and signal panel accesses will be re-used, in the same RF bands currently utilized. NPC installations are required to support Phase II Operational Assessment of EPLRS/PRC-117G Integration.</p> <p>(2) PORT NSW Hand Held and Man Pack radios do not require installation.</p> <p>(3) Funding in FY16 - FY18 is required to respond to CNO directive to provide additional Special Operations Forces (SOF) capability on the ESB 3 and ESB 4. The SOF component requires an Expeditionary Mobile Base (ESB) to have the capability for planning and conducting Intelligence, Surveillance, and Reconnaissance (ISR) and Boat Assault Force (BAF) and Helicopter Assault Force (HAF) missions. These funds procure identical sets of equipment to support SOF communications, consisting of a radio backbone infrastructure (total of 13 antennas) and increasing the bandwidth to support SOF missions. These additional capabilities will be back fitted during each ship's Post Shakedown Availability.</p>		

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 11	P-1 Line Item Number / Title: 3057 / Communications Items under \$5M	Item Number / Title [DODIC]: 1 / Communications Items under \$5M
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) EPLRS-DR Procurement		2017	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Dec 2016	May 2017	2	135.000	Y		
3.1.1) PORT NSW Hand Held Procurement		2015	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Feb 2015	Jul 2015	290	14.530	Y		
3.1.1) PORT NSW Hand Held Procurement		2016	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Jan 2016	Jun 2016	125	14.824	Y		
3.1.1) PORT NSW Hand Held Procurement		2017	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Dec 2016	May 2017	137	15.117	Y		
3.1.2) PORT NSW Man Pack Procurement		2015	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Feb 2015	Jul 2015	146	35.892	Y		
3.1.2) PORT NSW Man Pack Procurement		2016	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Jan 2016	Jun 2016	43	36.610	Y		
3.1.2) PORT NSW Man Pack Procurement		2017	Harris Corporation / Rochester, NY	C / FFP	SPAWAR	Dec 2016	May 2017	65	37.350	Y		
4.1.1) Hydra Procurement		2015	Harris / Lynchburg, VA	C / IDIQ	SSC LANT	Feb 2015	Aug 2015	1	1,288.000	Y		
5.1.1) BFTN System Procurement		2015	SAIC / San Diego, CA	C / FFP	SPAWAR	Jan 2015	May 2015	2	229.500	Y		Aug 2011
5.1.1) BFTN System Procurement		2016	SAIC / San Diego, CA	C / FFP	SPAWAR	Jan 2016	May 2016	5	234.000	Y		Aug 2011
5.1.1) BFTN System Procurement		2017	SAIC / San Diego, CA	C / FFP	SPAWAR	Jan 2017	May 2017	4	238.778	Y		Aug 2011
6.1.1) Navy Expeditionary C4I Procurement		2015	SSC PAC/SSC LANT / SSC PAC/SSC LANT	WR	SSC PAC/LANT	Dec 2014	Jan 2015	3	282.667	Y		
6.1.1) Navy Expeditionary C4I Procurement		2016	SSC PAC/SSC LANT / SSC PAC/SSC LANT	WR	SSC PAC/LANT	Dec 2015	Jan 2016	3	279.333	Y		

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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 02: Communications & Electronics Equip / BSA 12: Submarine Communications	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	22.797	11.057	16.021	34.151	-	34.151	38.132	33.164	31.903	32.736	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	22.797	11.057	16.021	34.151	-	34.151	38.132	33.164	31.903	32.736	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	22.797	11.057	16.021	34.151	-	34.151	38.132	33.164	31.903	32.736	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.988	0.453	0.030	-	0.030	0.065	0.109	0.022	0.002	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Increased budget from FY 2016 to FY 2017 is for the initial year of procurement of LBUCS Receive and SUBOPAETH. It also supports the required procurement of TACAMO shelters and their associated trailers. Finally it reflects the ramp up of the Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS).

The programs funded under Submarine Broadcast Support are Fixed Submarine Broadcast System (FSBS) sites which are Emergency Action Message (EAM) relay points providing primary Nuclear Command, Control, and Communication (NC3) connectivity between the President of the United States (POTUS) and Ballistic Missile submarines (SSBN). They improve the reliability, availability, maintainability, efficiency and performance of the Low Frequency (LF) and Very Low Frequency (VLF) submarine broadcast systems.

[P5 / W4009 Low Band Universal Communications System (LBUCS), Receive]: LBUCS will upgrade receive subsystems of Fixed Submarine Broadcast Systems (FSBS), which are approaching their operational end of life. LBUCS will ensure operational capability through the VLF architecture by providing system life extension and flexibility of submarine broadcast reception to submarines operating in a stealth posture.

[P5 / W4011 Submarine Operating Authority (SUBOPAETH)]: SUBOPAETH will modernize and standardize the aging command, control and communication (C3) infrastructure and several critical C3 systems at the four regional SUBOPAETH Broadcast Control Authority (BCA) sites.

[P5 / W4012 Take Charge and Move Out (TACAMO)]: TACAMO's primary mission is to receive and retransmit EAM to United States strategic forces. The TACAMO Ground Communication Programs will acquire the necessary fixed and mobile communications equipment to support the TACAMO mission.

[P3A / W4008 Transmission Equipment]: Transmission Equipment program will modernize the aging and obsolete components of the submarine broadcast transmission system, which includes the high power transmitters and antennas located at the Broadcast Transmitter Stations (BTS).

[P3A - 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit]: LBUCS Transmit will modernize the low power transmit subsystem hardware, software and waveform components at Broadcast Transmitter Stations (BTS) and Broadcast Control Authority (BCA) sites including the VLF Broadcast Builder, AN/URT-30B Integrated VLF Transmit Terminal (IVTT), IVTT Proxy, the MD-1310, MD-1315, and MD-1316 Modulators, and the North Atlantic Treaty Organization (NATO) Interoperable Submarine Broadcast System (NISBS).

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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 02: Communications & Electronics Equip / BSA 12: Submarine Communications		P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support
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	
<p>[P3A - 3 / W4010 NC3 NMHS - Nova Equipment]: Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS): The Navy Information eXchange Terminal (NIXT), will provide accurate and reliable delivery of time-critical messages for command and control of nuclear forces in a pre-attack environment for force direction, force management, situation monitoring and planning. NC3 NMHS, to include Nova and NIXT systems, will upgrade Nova hub sites and procure and field the NIXT to replace end-of-life legacy user terminals at shore communications stations supporting NC3. NC3 NMHS will provide Network Operations (NETOPS) and Cyber situational awareness tools to correlate cyber threats in the FSBS network and map the best path to deliver EAMs. Allow decision makers to determine best available FSBS paths for EAM delivery to strategic forces.</p>		

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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 02: Communications & Electronics Equip /
 BSA 12: Submarine Communications **P-1 Line Item Number / Title:**
 3107 / Submarine Broadcast Support

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Submarine Broadcast Support	P-5a, P-21		- / 0.000	- / -	- / 0.536	- / 8.601	- / -	- / 8.601
P-3a	1 / W4008 Transmission Equipment (TBD)			- / 13.165	- / 4.928	- / 9.257	- / 5.605	- / -	- / 5.605
P-3a	2 / W4009 Low Band Universal Communications System (LBUCS) Transmit (TBD)			- / 1.969	- / 3.823	- / 4.866	- / 9.209	- / -	- / 9.209
P-3a	3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) (TBD)			- / 7.663	- / 2.306	- / 1.362	- / 10.736	- / -	- / 10.736
P-40	Total Gross/Weapon System Cost			- / 22.797	- / 11.057	- / 16.021	- / 34.151	- / -	- / 34.151

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Submarine Broadcast Support	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / W4008 Transmission Equipment (TBD)			- / 11.682	- / 12.496	- / 14.357	- / 14.728	- / -	- / 86.218
P-3a	2 / W4009 Low Band Universal Communications System (LBUCS) Transmit (TBD)			- / 2.454	- / -	- / -	- / -	- / -	- / 22.321
P-3a	3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS) (TBD)			- / 12.115	- / 10.269	- / 9.028	- / 10.134	- / -	- / 63.613
P-40	Total Gross/Weapon System Cost			- / 38.132	- / 33.164	- / 31.903	- / 32.736	Continuing	Continuing

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

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

Justification:

LBUCS Receive: FY17 funding will provide for the procurement of LBUCS receive shore and submarine units.

LBUCS Transmit: FY17 funding will provide for the procurement and installation of LBUCS transmit units at Broadcast Transmitter Stations (BTS) and Broadcast Control Authority (BCA) sites.

Submarine Operating Authority (SUBOPAUTH): FY17 funding will provide for the procurement of modern automated teletype terminals for each of the four SUBOPAUTH BCA sites.

Take Charge and Move Out (TACAMO): FY17 funding will provide for the procurement of fixed and mobile communications equipment to support the TACAMO mission.

Transmission Equipment: FY17 funding will provide for the ten procurements and ten installations at five different BTS sites.

Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS): FY17 funding will provide for the procurement and installation of NC3 NMHS NIXT & Nova systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Item Number / Title [DODIC]: 1 / Submarine Broadcast Support
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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)	0.000	-	0.536	8.601	-	8.601
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	0.536	8.601	-	8.601
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	0.536	8.601	-	8.601

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - W4009 Low Band Universal Communications System (LBUCS), Receive Cost																		
Recurring Cost																		
1.1.1) W4009 LBUCS Receive ^{(†) (1)}	-	-	0.000	-	-	-	-	-	-	96.780	12	1.161	-	-	-	96.780	12	1.161
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.161	-	-	-	-	-	1.161
<i>Subtotal: Hardware - W4009 Low Band Universal Communications System (LBUCS), Receive Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.161	-	-	-	-	-	1.161
Hardware - W4011 Submarine Operating Authority (SUBOPAETH) Cost																		
Recurring Cost																		
3.1.1) Submarine Operating Authority (SUBOPAETH) ^{(†) (2)}	-	-	0.000	-	-	-	-	-	-	352.000	4	1.408	-	-	-	352.000	4	1.408
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.408	-	-	-	-	-	1.408
<i>Subtotal: Hardware - W4011 Submarine Operating Authority (SUBOPAETH) Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	1.408	-	-	-	-	-	1.408
Hardware - W4012 Take Charge and Move Out (TACAMO) Cost																		
Recurring Cost																		
5.1.1) W4012 Take Charge and Move Out (TACAMO) ^{(†) (3)}	-	-	0.000	-	-	-	169.000	3	0.507	1,962.500	3	5.888	-	-	-	1,962.500	3	5.888
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	0.507	-	-	5.888	-	-	-	-	-	5.888

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12						P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support						Item Number / Title [DODIC]: 1 / Submarine Broadcast Support					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware - W4012 Take Charge and Move Out (TACAMO) Cost</i>	-	-	0.000	-	-	-	-	-	0.507	-	-	5.888	-	-	-	-	-	5.888
Support - Support Cost																		
6.1) LBUCS Receive Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	0.050
6.2) SUBOPAETH Production Support	-	-	0.000	-	-	-	-	-	-	-	-	0.030	-	-	-	-	-	0.030
6.3) TACAMO Production Support	-	-	0.000	-	-	-	-	-	0.029	-	-	0.064	-	-	-	-	-	0.064
<i>Subtotal: Support - Support Cost</i>	-	-	0.000	-	-	-	-	-	0.029	-	-	0.144	-	-	-	-	-	0.144
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	0.536	-	-	8.601	-	-	-	-	-	8.601

(t) indicates the presence of a P-5a

Footnotes:

- (1) Unit costs for Low Band Universal Communications System (LBUCS) Receive equipment vary due to unique platform and equipment configurations.
- (2) Unit costs for Submarine Operating Authority (SUBOPAETH) equipment vary due to unique equipment configurations.
- (3) - Unit cost fluctuation is because the Take Charge and Move Out (TACAMO) program will procure a variety of fixed and mobile communications equipment to support the United States strategic forces. No installation costs associated with TACAMO (turnkey). - FY16 procured 3 trailers for transportation of TACAMO shelters; FY17 will procure three additional TACAMO shelters and their associated trailers.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Item Number / Title [DODIC]: 1 / Submarine Broadcast Support
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) W4009 LBUCS Receive		2017	SSC PAC / San Diego, CA	WR	San Diego, CA	Nov 2016	Jun 2017	12	96.780	N	Aug 2016	
3.1.1) Submarine Operating Authority (SUBOPAATH)		2017	SSC LANT / Charleston, SC	WR	Charleston, SC	Dec 2016	Dec 2017	4	352.000	Y		
5.1.1) W4012 Take Charge and Move Out (TACAMO) ^(t)		2016	EXWC / Port Hueneme, CA	MIPR	Port Hueneme, CA	Jan 2016	Jul 2016	3	169.000	Y		Oct 2015
5.1.1) W4012 Take Charge and Move Out (TACAMO) ^(t)		2017	RDSI / McLean, VA	C / FFP	San Diego, CA	Apr 2017	Oct 2017	3	1,962.500	Y		Feb 2015

^(t) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Item Number / Title [DODIC]: 1 / Submarine Broadcast Support
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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
5.1.1) W4012 Take Charge and Move Out (TACAMO) ⁽³⁾																															
1		2016	NAVY	3	3	-																								-	
2		2017	NAVY	3	-	3	3																							-	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Item Number / Title [DODIC]: 1 / Submarine Broadcast Support
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	EXWC - Port Hueneme, CA	-	-	-	-	3	6	9	-	-	-	-
2	RDSI - McLean, VA	-	-	-	-	6	6	12	-	-	-	-

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 1 / W4008 Transmission Equipment
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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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	13.165	4.928	9.257	5.605	-	5.605	11.682	12.496	14.357	14.728	-	86.218
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	13.165	4.928	9.257	5.605	-	5.605	11.682	12.496	14.357	14.728	-	86.218
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	13.165	4.928	9.257	5.605	-	5.605	11.682	12.496	14.357	14.728	-	86.218
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Transmission Equipment program will modernize the aging and obsolete components of the submarine broadcast transmission system, which includes the high power transmitters and antennas located at the Broadcast Transmitter Stations (BTS).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support					Modification Number / Title: 1 / W4008 Transmission Equipment			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: W4008 Transmission Equipment</i>													
A Kits													
Recurring													
1.1.1) Transmission Equipment - NonOrganic	4 / 10.357	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 10.357	
1.1.2) Antennas - NonOrganic ⁽⁴⁾	- / -	3 / 1.450	1 / 0.550	6 / 1.828	- / -	6 / 1.828	2 / 0.700	6 / 2.900	7 / 2.171	9 / 7.415	- / -	34 / 17.014	
1.1.3) Transmitters - NonOrganic ⁽⁵⁾	- / -	1 / 3.000	2 / 7.200	4 / 2.018	- / -	4 / 2.018	3 / 9.633	3 / 7.710	2 / 8.388	1 / 3.500	- / -	16 / 41.449	
<i>Subtotal: Recurring</i>	- / 10.357	- / 4.450	- / 7.750	- / 3.846	- / -	- / 3.846	- / 10.333	- / 10.610	- / 10.559	- / 10.915	- / -	- / 68.820	
<i>Subtotal: W4008 Transmission Equipment</i>	4 / 10.357	4 / 4.450	3 / 7.750	10 / 3.846	- / -	10 / 3.846	5 / 10.333	9 / 10.610	9 / 10.559	10 / 10.915	- / -	54 / 68.820	
<i>Subtotal: Procurement, All Modification Items</i>	- / 10.357	- / 4.450	- / 7.750	- / 3.846	- / -	- / 3.846	- / 10.333	- / 10.610	- / 10.559	- / 10.915	- / -	- / 68.820	
Support (All Modification Items)													
2.1) Production Support	- / 0.978	- / 0.198	- / 0.207	- / 0.083	- / -	- / 0.083	- / 0.174	- / 0.420	- / 0.397	- / 0.421	- / -	- / 12.878	
<i>Subtotal: Support</i>	- / 0.978	- / 0.198	- / 0.207	- / 0.083	- / -	- / 0.083	- / 0.174	- / 0.420	- / 0.397	- / 0.421	- / -	- / 12.878	
Installation													
<i>Modification Item 1 of 1: W4008 Transmission Equipment</i>	- / 1.830	- / 0.280	- / 1.300	- / 1.676	- / -	- / 1.676	- / 1.175	- / 1.466	- / 3.401	- / 3.392	- / -	- / 14.520	
<i>Subtotal: Installation</i>	- / 1.830	- / 0.280	- / 1.300	- / 1.676	- / -	- / 1.676	- / 1.175	- / 1.466	- / 3.401	- / 3.392	- / -	- / 14.520	
Total													
Total Cost (Procurement + Support + Installation)	13.165	4.928	9.257	5.605	-	5.605	11.682	12.496	14.357	14.728	-	86.218	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 1 / W4008 Transmission Equipment

Modification Item 1 of 1: W4008 Transmission Equipment

Manufacturer Information

Manufacturer Name: SSC PAC ⁽⁶⁾				Manufacturer Location: San Diego, CA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 11			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Jan 2016	Dec 2016				
Delivery Dates	Nov 2015	Nov 2016	Nov 2017				

Manufacturer Name: SSC LANT ⁽⁷⁾				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 5			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2016	Mar 2016	Dec 2016				
Delivery Dates	Sep 2016	Nov 2016	May 2017				

Installation Information

Method of Implementation: Alteration Installation Team:: Installation Name: Transmission Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	4 / 1.830	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	4 / 1.830
FY 2015	- / -	- / 0.280	4 / 0.800	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.080
FY 2016	- / -	- / -	2 / 0.500	1 / 0.331	- / -	1 / 0.331	- / -	- / -	- / -	- / -	- / -	3 / 0.831
FY 2017	- / -	- / -	- / -	9 / 1.345	- / -	9 / 1.345	1 / 0.350	- / -	- / -	- / -	- / -	10 / 1.695
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.825	1 / 0.350	- / -	- / -	- / -	5 / 1.175
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 1.116	2 / 2.498	- / -	- / -	8 / 3.614
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.903	5 / 0.930	- / -	9 / 1.833
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 2.462	1 / -	10 / 2.462
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 1.830	- / 0.280	6 / 1.300	10 / 1.676	- / -	10 / 1.676	5 / 1.175	7 / 1.466	6 / 3.401	14 / 3.392	1 / -	53 / 14.520

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	4	-	-	-	-	-	-	6	-	-	9	1	-	-	5	-	-	-	7	-	-	1	5	-	-	-	14	-	1	53
Out	4	-	-	-	-	-	-	-	6	-	-	9	1	-	-	5	-	-	-	7	-	-	1	5	-	-	-	14	1	53

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 1 / W4008 Transmission Equipment

Footnotes:

(4) - Transmission Equipment funds modernization of antennas (bushings, tower lights, top changer and etc.) used in Submarine Broadcast. Procurement and Installation unit costs vary due to unique equipment and site configurations. - In FY19, One bushing unit assigned as a rotatable pool to accommodate equipment refurbishment; no installation costs required.

(5) - Transmission Equipment funds modernization of transmitters (power amplifier plate regulators, helix coils, solid state crowbar, and etc.) used in Submarine Broadcast. - Procurement and Installation unit costs vary due to unique equipment and site configurations. - FY16 procured the replacement of the Helix Coils which are at end of service life. FY17 procurement is for multiple equipment types such as crowbar indicator, Autotune Computers and bushing.

(6) Production lead time represents an average. The antenna procurements vary due to unique equipment required for modernization. For example, the bushing PLT is 11 months and tower lights PLT is 5 months.

(7) Production lead time varies due to unique equipment required for transmitter modernization efforts. Late FY15 contract award due to a change in contracting strategy for Transmission Equipment procurement

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support				Modification Number / Title: 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit				

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 <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	1.969	3.823	4.866	9.209	-	9.209	2.454	-	-	-	-	22.321
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	1.969	3.823	4.866	9.209	-	9.209	2.454	-	-	-	-	22.321
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	1.969	3.823	4.866	9.209	-	9.209	2.454	-	-	-	-	22.321
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Thousands)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Low Band Universal Communication System (LBUCS) Transmit will modernize the transmit subsystem hardware, software, and waveform components at Broadcast Transmitter Stations (BTS) and Broadcast Control Authority (BCA) sites including the Very Low Frequency (VLF) Broadcast Builder, AN/URT-30B Integrated VLF Transmit Terminal (IVTT), IVTT Proxy, the MD-1310, MD-1315, and MD-1316 Modulators, and the North Atlantic Treaty Organization (NATO) Interoperable Submarine Broadcast System (NISBS).

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Exhibit P-3a, Individual Modification: PB 2017 Navy											Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support							Modification Number / Title: 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit		
Models of Systems Affected: VLF Broadcast System				Modification Type: TBD				Related RDT&E PEs: 0101402N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: W4009 Low Band Universal Communications System (LBUCS) Transmit</i>													
A Kits													
Non-Recurring													
1.1.1) Broadcast Keying Station (BKS)/Broadcast Control Authority (BCA) - NonOrganic ⁽⁸⁾	2 / 1.062	2 / 1.100	8 / 3.868	18 / 4.595	- / -	18 / 4.595	- / -	- / -	- / -	- / -	- / -	30 / 10.625	
1.1.2) Broadcast Transmitter Station (BTS) - NonOrganic	4 / 0.498	- / -	- / -	18 / 1.762	- / -	18 / 1.762	4 / 0.320	- / -	- / -	- / -	- / -	26 / 2.580	
<i>Subtotal: Non-Recurring</i>	- / 1.560	- / 1.100	- / 3.868	- / 6.357	- / -	- / 6.357	- / 0.320	- / -	- / -	- / -	- / -	- / 13.205	
<i>Subtotal: W4009 Low Band Universal Communications System (LBUCS) Transmit</i>	6 / 1.560	2 / 1.100	8 / 3.868	36 / 6.357	- / -	36 / 6.357	4 / 0.320	- / -	- / -	- / -	- / -	56 / 13.205	
<i>Subtotal: Procurement, All Modification Items</i>	- / 1.560	- / 1.100	- / 3.868	- / 6.357	- / -	- / 6.357	- / 0.320	- / -	- / -	- / -	- / -	- / 13.205	
Support (All Modification Items)													
2.1) Production Support	- / 0.093	- / 0.182	- / 0.184	- / 0.121	- / -	- / 0.121	- / -	- / -	- / -	- / -	- / -	- / 0.580	
2.2) DSA ⁽⁹⁾	- / 0.213	- / 0.445	- / 0.449	- / 0.100	- / -	- / 0.100	- / 0.010	- / -	- / -	- / -	- / -	- / 1.217	
2.3) Data Logistics ⁽¹⁰⁾	- / 0.103	- / 0.243	- / 0.245	- / 0.025	- / -	- / 0.025	- / 0.025	- / -	- / -	- / -	- / -	- / 0.641	
2.4) Engineering Change Requests	- / -	- / 0.333	- / 0.120	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.453	
<i>Subtotal: Support</i>	- / 0.409	- / 1.203	- / 0.998	- / 0.246	- / -	- / 0.246	- / 0.035	- / -	- / -	- / -	- / -	- / 2.891	
Installation													
<i>Modification Item 1 of 1: W4009 Low Band Universal Communications System (LBUCS) Transmit</i>	- / 0.000	- / 1.520	- / -	- / 2.606	- / -	- / 2.606	- / 2.099	- / -	- / -	- / -	- / -	- / 6.225	
<i>Subtotal: Installation</i>	- / 0.000	- / 1.520	- / -	- / 2.606	- / -	- / 2.606	- / 2.099	- / -	- / -	- / -	- / -	- / 6.225	
Total													
Total Cost (Procurement + Support + Installation)	1.969	3.823	4.866	9.209	-	9.209	2.454	-	-	-	-	22.321	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit

Modification Item 1 of 1: W4009 Low Band Universal Communications System (LBUCS) Transmit

Manufacturer Information

Manufacturer Name: SSC LANT	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014	Feb 2016	Nov 2016				
Delivery Dates	Sep 2015	May 2016	Feb 2017				

Installation Information

Method of Implementation: Alteration Installation Team:: Installation Name: Broadcast Control Authority & Broadcast Transmitter

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	6 / 1.020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	6 / 1.020
FY 2015	- / -	2 / 0.500	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.500
FY 2016	- / -	- / -	- / -	8 / 0.292	- / -	8 / 0.292	- / -	- / -	- / -	- / -	- / -	8 / 0.292
FY 2017	- / -	- / -	- / -	22 / 2.314	- / -	22 / 2.314	14 / 1.858	- / -	- / -	- / -	- / -	36 / 4.172
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.241	- / -	- / -	- / -	- / -	4 / 0.241
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	8 / 1.520	- / -	30 / 2.606	- / -	30 / 2.606	18 / 2.099	- / -	- / -	- / -	- / -	56 / 6.225

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot		
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
In	-	-	-	-	8	-	-	-	-	-	8	12	10	6	8	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56
Out	-	-	-	-	8	-	-	-	-	-	8	12	10	6	8	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56

Footnotes:

⁽⁸⁾ Production costs for LBUCS equipment vary due to unique site configurations. Cost and duration for LBUCS Broadcast Control Authority (BCA) installations are greater than Broadcast Transmitter Stations (BTS) due to complexity of the BCA system. Install costs for BCA equipment vary due to unique site configuration and mix of CONUS and OCONUS locations. LBUCS Transmit equipment and cables will be

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 2 / W4009 Low Band Universal Communications System (LBUCS) Transmit

installed in racks and must go through acceptance and integration testing prior to installation. Timeframe varies due to complexity of each site's unique system configuration. Installation In/Out time frame reflects installation team and location availability.

⁽⁹⁾ Design Services Allocation (DSA) funding supports development of installation drawings.

⁽¹⁰⁾ Data logistics funds the initial logistics package and deficiency corrections.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support				Modification Number / Title: 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	7.663	2.306	1.362	10.736	-	10.736	12.115	10.269	9.028	10.134	-	63.613
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	7.663	2.306	1.362	10.736	-	10.736	12.115	10.269	9.028	10.134	-	63.613
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	7.663	2.306	1.362	10.736	-	10.736	12.115	10.269	9.028	10.134	-	63.613
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[W4010 NC3 NMHS - Nova Equipment] Nuclear Command, Control and Communication Navy Modernized Hybrid Solution (NC3 NMHS): The Navy Information eXchange Terminal (NIXT), will provide accurate and reliable delivery of time-critical messages for command and control of nuclear forces in a pre-attack environment for force direction, force management, situation monitoring and planning. NC3 NMHS, to include Nova and NIXT systems, will upgrade Nova hub sites and procure and field the NIXT to replace end-of-life legacy user terminals at shore communications stations supporting NC3. NC3 NMHS will provide Network Operations (NETOPS) and Cyber situational awareness tools to correlate cyber threats in the FSBS network and map the best path to deliver EAMs. Allow decision makers to determine best available FSBS paths for EAM delivery to strategic forces.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

Models of Systems Affected: [No Model Specified]	Modification Type: TBD	Related RDT&E PEs:
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

<i>Modification Item 1 of 1:</i> W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)												
A Kits												
Recurring												
1.1.1) W4010 NC3 NMHS - Nova Equipment - NonOrganic ⁽¹¹⁾	5 / 1.030	- / -	2 / 0.920	4 / 3.337	- / -	4 / 3.337	5 / 4.584	4 / 1.890	4 / 2.010	5 / 2.560	- / -	29 / 16.331
1.1.2) W4010 NC3 NMHS - NIXT Equipment - NonOrganic ⁽¹²⁾	95 / 2.561	3 / 0.380	- / -	32 / 4.160	- / -	32 / 4.160	25 / 3.320	21 / 4.250	21 / 4.106	25 / 4.450	- / -	222 / 23.227
<i>Subtotal: Recurring</i>	- / 3.591	- / 0.380	- / 0.920	- / 7.497	- / -	- / 7.497	- / 7.904	- / 6.140	- / 6.116	- / 7.010	- / -	- / 39.558
<i>Subtotal: W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)</i>	100 / 3.591	3 / 0.380	2 / 0.920	36 / 7.497	- / -	36 / 7.497	30 / 7.904	25 / 6.140	25 / 6.116	30 / 7.010	- / -	251 / 39.558
<i>Subtotal: Procurement, All Modification Items</i>	- / 3.591	- / 0.380	- / 0.920	- / 7.497	- / -	- / 7.497	- / 7.904	- / 6.140	- / 6.116	- / 7.010	- / -	- / 39.558

Support (All Modification Items)

2.1) NC3 NMHS - Production Support	- / -	- / 0.176	- / 0.053	- / 0.437	- / -	- / 0.437	- / 0.458	- / 0.356	- / 0.355	- / 0.407	- / -	- / 2.242
<i>Subtotal: Support</i>	- / 0.000	- / 0.176	- / 0.053	- / 0.437	- / -	- / 0.437	- / 0.458	- / 0.356	- / 0.355	- / 0.407	- / -	- / 2.242

Installation

<i>Modification Item 1 of 1:</i> W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)												
<i>Subtotal: Installation</i>	- / 4.072	- / 1.750	- / 0.389	- / 2.802	- / -	- / 2.802	- / 3.753	- / 3.773	- / 2.557	- / 2.717	- / -	- / 21.813

Total

Total Cost (Procurement + Support + Installation)	7.663	2.306	1.362	10.736	-	10.736	12.115	10.269	9.028	10.134	-	63.613
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

Modification Item 1 of 1: W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

Manufacturer Information

Manufacturer Name: SSC PAC	Manufacturer Location: San Diego, CA
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 1

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Nov 2014	Nov 2015	Nov 2016				
Delivery Dates	Dec 2014	Dec 2015	Dec 2016				

Installation Information

Method of Implementation: [none specified]:: Installation Name: W4010 NC3 NMHS - Nova Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	5 / 0.755	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	5 / 0.755
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	2 / 0.389	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.389
FY 2017	- / -	- / -	- / -	4 / 1.656	- / -	4 / 1.656	- / -	- / -	- / -	- / -	- / -	4 / 1.656
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	5 / 2.501	- / -	- / -	- / -	- / -	5 / 2.501
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.182	- / -	- / -	- / -	4 / 1.182
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.755	- / -	- / -	4 / 0.755
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.763	- / -	5 / 0.763
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	5 / 0.755	- / -	2 / 0.389	4 / 1.656	- / -	4 / 1.656	5 / 2.501	4 / 1.182	4 / 0.755	5 / 0.763	- / -	29 / 8.001

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	5	-	-	-	-	-	-	1	1	-	-	2	2	-	1	2	2	-	-	2	2	-	-	2	2	-	-	2	3	-	29
Out	5	-	-	-	-	-	-	1	1	-	-	2	2	-	1	2	2	-	-	2	2	-	-	2	2	-	-	2	3	-	29

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3107 / Submarine Broadcast Support	Modification Number / Title: 3 / W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

Modification Item 1 of 1: W4010 Nuclear Command, Control and Communications Navy Modernized Hybrid Solution (NC3 NMHS)

Installation Information

Method of Implementation: [none specified]:: Installation Name: W4010 NC3 NMHS - NIXT Equipment

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	95 / 3.317	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	95 / 3.317
FY 2015	- / -	3 / 1.750	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.750
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	32 / 1.146	- / -	32 / 1.146	- / -	- / -	- / -	- / -	- / -	32 / 1.146
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	25 / 1.252	- / -	- / -	- / -	- / -	25 / 1.252
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 2.591	- / -	- / -	- / -	21 / 2.591
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 1.802	- / -	- / -	21 / 1.802
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 1.954	- / -	25 / 1.954
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	95 / 3.317	3 / 1.750	- / -	32 / 1.146	- / -	32 / 1.146	25 / 1.252	21 / 2.591	21 / 1.802	25 / 1.954	- / -	222 / 13.812

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	95	-	-	1	2	-	-	-	-	8	8	8	8	5	6	6	8	4	5	6	6	4	6	5	6	5	6	8	6	-	222
Out	95	-	-	1	2	-	-	-	-	8	8	8	8	5	6	6	8	4	5	6	6	4	6	5	6	5	6	8	6	-	222

Footnotes:

(11) Unit cost fluctuation is due to procurement of variable systems to support Nova configurations & the addition of NETOPS/CND capability requirement to meet cyber security requirements. Installation costs vary due to unique site configurations.

(12) Unit cost fluctuation is due to procurement of variable systems to support Nova configurations & NETOPS/CND capability were added as a requirement to meet cyber security requirements. Installation costs vary due to unique site configurations.

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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 02: Communications & Electronics Equip / BSA 12: Submarine Communications	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,001.104	64.954	60.945	64.529	-	64.529	64.483	64.233	67.794	69.177	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,001.104	64.954	60.945	64.529	-	64.529	64.483	64.233	67.794	69.177	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,001.104	64.954	60.945	64.529	-	64.529	64.483	64.233	67.794	69.177	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	1.699	1.048	0.305	-	0.305	0.574	0.559	0.540	0.239	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$5.305M to account for the availability of prior year execution balances.

PROGRAM COVERAGE: The Submarine Communications Program mission is to create a common, automated, open system architecture radio room for all submarine classes. The program provides for the procurement and installation of systems incorporating the technical advances of network centric warfare to allow the submarine force to communicate as part of the Battle Group. The program addresses the unique demands of submarine communications, stealth, obsolescence issues and higher data rate requirements.

[P40A / L0035 Antenna Modifications]: - Antenna modifications provide for the procurement and installation of field change kits of legacy antenna equipment (OE-315, AN/BRA-24, AN/BRA-6B, BRT-1/1A). These modifications address performance issues, improve reliability and maintainability, decrease vulnerability, and provide cost effective technology refresh. Modifications are applicable to all submarine classes (LOS ANGELES, SEAWOLF, OHIO SSBN/SSGN, and VIRGINIA) and are implemented on a Fleet priority basis.

[P40A / L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements]: - The Towed Buoy Antenna BRR-6/6B reliability improvements provide for the procurement and installation of field change kits of the Towed Buoy Antenna BRR-6/6B to improve system performance (measured by operational availability) and reliability (measured by mean time between failures); improvements are applicable to SSBN only.

[P40A / L0097 Submarine Local Area Network (SubLAN)]: Provides a robust shipboard backbone Information Technology (IT) network with multiple classification enclaves that, along with the Common Submarine Radio Room (CSRR) and Automated Digital Network System (ADNS), provides end-to-end wideband connectivity to the global Defense Information System Networks (DISN) (Secret Internet Protocol Router Network and Nonclassified Internet Protocol Router Network). SubLAN is designed in accordance with the IT for the 21st Century fleet initiative, and thus SubLAN will support greatly improved connectivity to, and interoperability with, the carrier strike group (CSG) and expeditionary strike group (ESG) commander, thereby achieving network-centric warfare, and with shore commands. The SubLAN network is enhanced for mission-critical tactical applications, and as such SubLAN forms the medium that will interconnect Sonar, Combat, Electronic Surveillance Measures, Radio, etc., and permits the seamless exchange of warfighting tactical data between these systems and with the CSG/ESG commander. The SubLAN tactical backbone replicates the functionality of the United States Ship (USS) VIRGINIA class network architecture, allowing back fit of VIRGINIA class tactical subsystem modernization into existing submarines. The SubLAN shipboard IT infrastructure is being designed as an all-Commercial Off-The-Shelf (COTS), open-system architecture such that it will permit other electronic subsystem programs to rely on SubLAN for subsystem interconnectivity (rather than having each subsystem install its own IT network); the revolutionary approach of treating the shipboard network as a basic utility (like water, power and lighting) will support the efficient and economic modernization of the various electronic subsystems.

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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 02: Communications & Electronics Equip / BSA 12: Submarine Communications		P-1 Line Item Number / Title: 3130 / Submarine Communication 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	
<p>[P3A / L0080 OE-538/BRC Inc 2]: OUTBOARD ELECTRONICS (OE)-538 & OE-592 ANTENNA GROUP - The OE-538 System is currently installed on all submarine classes. The Increment 2 (OE-538A & OE-592A) effort upgrades the system to support emerging submarine communications requirements: Mobile User Objective System (MUOS), Link-16 Tactical Data Link and Iridium.</p> <p>[P3A - 2 / L0087 Submarine High Data Rate Antenna]: SUBMARINE HIGH DATA RATE (SubHDR) SATELLITE COMMUNICATIONS SYSTEM - The Submarine HDR system provides submarines with antennas that have the bandwidth, gain, and flexibility to meet the stated Commander, Submarine Force, United States Atlantic Fleet/Commander, Submarine Force, US Pacific Fleet (COMSUBLANT/COMSUBPAC) requirements for HDR communications in the Super High Frequency (SHF) and Extremely High Frequency (EHF) frequency spectrums. The Radome provides a watertight enclosure for the antenna and associated electronics, as well as being a transparent window for Radio Frequency, (RF) communication signals to pass through. This radome needs to be replaced with a newly designed radome because the existing radome is experiencing severe cracking after only 3 to 4 years of service, at which time it is required to be pulled from service in order to prevent an implosion. This new design will prevent those cracks from occurring.</p> <p>[P3A - 3 / L0084 CSRR-SSBN (OHIO)]: COMMON SUBMARINE RADIO ROOM (CSRR) (L0084) - The CSRR is a completely interoperable submarine communications system operating within the Information Dominance architecture, which provides consistent and reliable two-way, modern, Internet Protocol (IP) connectivity to joint and combined forces. This evolutionary system achieves unmatched capability, cost reduction, and future technology integration via a multimedia, circuit sharing, and Commercial Off-The-Shelf (COTS) based open architecture that serves as the shipboard automated communications control system. The CSRR provides a common functional External Communications System (ECS) baseline, as well as commonality of hardware and software across all submarine classes and is leveraged by the VIRGINIA Shipbuilding Conversion, Navy (SCN) program. Procurement in this line is for the radio room workstations, chassis, common power supplies, power distribution units, cabling, mounting kits and ancillary components required to integrate submarine communication equipment. The Radio Frequency Distribution and Control System (RFDACS) technology update brings Commercial Off-The-Shelf (COTS) functionality and supportability to the Submarine antenna system. This procurement supports LOS ANGELES, SEAWOLF, VIRGINIA and OHIO (SSBN and SSGN) class submarines.</p>		

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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 02: Communications & Electronics Equip / BSA 12: Submarine Communications

P-1 Line Item Number / Title:
3130 / Submarine Communication 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				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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Communication Equipment	P-5a		- / 200.695	- / 8.359	- / 6.157	- / 4.225	- / -	- / 4.225
P-3a	1 / L0080 OE-538/BRC Inc 2 (Individual Modification Program)			- / 0.000	- / 6.869	- / 6.716	- / 14.623	- / -	- / 14.623
P-3a	2 / L0087 Submarine High Data Rate Antenna (Individual Modification Program)			- / 375.436	- / 3.282	- / 6.071	- / 4.241	- / -	- / 4.241
P-3a	3 / L0084 CSRR-SSBN (OHIO) (TBD)			- / 186.866	- / 11.363	- / 9.729	- / 12.896	- / -	- / 12.896
P-3a	4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades (TBD)			- / 27.404	- / 4.544	- / -	- / 1.052	- / -	- / 1.052
P-3a	5 / L0084 CSRR-SSN (SEAWOLF) (TBD)			- / 49.305	- / 1.739	- / -	- / 3.266	- / -	- / 3.266
P-3a	6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades (TBD)			- / 36.544	- / 8.257	- / 8.608	- / 9.704	- / -	- / 9.704
P-3a	7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades (TBD)			- / 124.854	- / 20.541	- / 23.664	- / 14.522	- / -	- / 14.522
P-40	Total Gross/Weapon System Cost			- / 1,001.104	- / 64.954	- / 60.945	- / 64.529	- / -	- / 64.529

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Submarine Communication Equipment	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / L0080 OE-538/BRC Inc 2 (Individual Modification Program)			- / 21.929	- / 20.976	- / 21.423	- / 21.874	Continuing	Continuing
P-3a	2 / L0087 Submarine High Data Rate Antenna (Individual Modification Program)			- / 3.330	- / 2.164	- / 3.475	- / 8.440	Continuing	Continuing
P-3a	3 / L0084 CSRR-SSBN (OHIO) (TBD)			- / 9.021	- / 6.809	- / 8.406	- / 8.529	Continuing	Continuing
P-3a	4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades (TBD)			- / 2.750	- / 1.607	- / 0.460	- / 3.180	Continuing	Continuing
P-3a	5 / L0084 CSRR-SSN (SEAWOLF) (TBD)			- / 1.707	- / 1.116	- / 0.422	- / -	Continuing	Continuing
P-3a	6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades (TBD)			- / 6.785	- / 2.546	- / 11.511	- / 11.279	Continuing	Continuing
P-3a	7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades (TBD)			- / 9.772	- / 6.479	- / 3.622	- / 2.692	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 64.483	- / 64.233	- / 67.794	- / 69.177	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:

- FY17 Towed Buoy Antenna BRR-6/6B: Procure and install multiple field change kits to improve system performance (measured by operational availability) and reliability (measured by mean time between failure).
- FY17 CSRR: Implements CSRR on LOS ANGELES class submarines and modernizes CSRR on OHIO (SSBN and SSGN), SEAWOLF and VIRGINIA platforms.
- FY17 SubHDR: Continues procurement of new radomes to replace existing cracking radomes.
- FY17 OE-538: Procure upgrade kits to support submarine communications requirements: Mobile User Objective System (MUOS), Link-16 Tactical Data Link and Iridium.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12 **P-1 Line Item Number / Title:** 3130 / Submarine Communication Equipment **Aggregated Items Title:** Submarine Communication Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total			
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	
1) L0035 Antenna Modifications																					
1.1) Antenna Modifications ⁽¹⁾	A		148.447	150	22.267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 1) L0035 Antenna Modifications			-	-	22.267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2) CSRR - Support Systems Mod Kits (Increment 1 Ver 3, 4 & 5) ⁽²⁾																					
2.1) Kit Quantity (Prior Years)	A		4,337.750	8	34.702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.2) Equipment - Mod Kits Inc 1 Ver 3 ^(†)	A		1,805.333	3	5.416	2,202.000	1	2.202	-	-	-	-	-	-	-	-	-	-	-	-	
2.3) Equipment - Mod Kits Inc 1 Ver 4 ^(†)	A		-	-	-	-	-	-	193.500	2	0.387	-	-	-	-	-	-	-	-	-	
2.5) Equipment - MRTS	A		281.000	8	2.248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2.6) Production Support	A		-	-	0.371	-	-	0.132	-	-	0.023	-	-	-	-	-	-	-	-	-	
Subtotal: 2) CSRR - Support Systems Mod Kits (Increment 1 Ver 3, 4 & 5)			-	-	42.737	-	-	2.334	-	-	0.410	-	-	-	-	-	-	-	-	-	
3) L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements																					
3.1) Reliability Improvements ^{(3)(†)}	A		19.900	20	0.398	50.776	49	2.488	13.613	168	2.287	62.132	68	4.225	-	-	-	62.132	68	4.225	
Subtotal: 3) L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements			-	-	0.398	-	-	2.488	-	-	2.287	-	-	4.225	-	-	-	-	-	-	4.225
4) L0097 Submarine Local Area Network (SUBLAN) ⁽⁴⁾																					
4.1) Hardware ^(†)	A		286.381	268	76.750	25.167	6	0.151	24.000	4	0.096	-	-	-	-	-	-	-	-	-	
4.2) Installation of Hardware	A		-	-	49.198	-	-	3.215	-	-	3.196	-	-	-	-	-	-	-	-	-	
4.3) Production Support	A		-	-	8.663	-	-	0.041	-	-	0.043	-	-	-	-	-	-	-	-	-	
4.4) DSA	A		-	-	0.682	-	-	0.130	-	-	0.125	-	-	-	-	-	-	-	-	-	
Subtotal: 4) L0097 Submarine Local Area Network (SUBLAN)			-	-	135.293	-	-	3.537	-	-	3.460	-	-	-	-	-	-	-	-	-	
Total			-	-	200.695	-	-	8.359	-	-	6.157	-	-	4.225	-	-	-	-	-	4.225	

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or sum exactly, due to rounding.
^(†) indicates the presence of a P-5a

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Aggregated Items Title: Submarine Communication Equipment

- Footnotes:**
- (1) Antenna Modifications quantities and unit costs vary based on system (e.g. OE-315, BRA-24, etc.) and complexity of field change kits. Installation costs included in procurement (Turnkey).
 - (2) CSRR modernization kit unit cost varies between versions due to different capabilities/configurations.
 - (3) Towed Buoy Antenna BRR-6/6B quantities and unit cost vary based on complexity of component field change kits. Installation costs included in procurement (Turnkey).
 - (4) Installation of SubLAN Personal Computers (PC's) and Engine Room Drop Augment (ERDA).

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment				Aggregated Items: Submarine Communication Equipment				
Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2) CSRR - Support Systems Mod Kits (Increment 1 Ver 3, 4 & 5)												
2.2) Equipment - Mod Kits Inc 1 Ver 3		2015	SAIC / Charleston, SC	C / CPFF	SSC LANT	Apr 2015	Apr 2016	1	2,202.000	Y		Oct 2014
2.3) Equipment - Mod Kits Inc 1 Ver 4		2016	SAIC / Charleston, SC	C / CPFF	SSC LANT	Feb 2016	Feb 2017	2	193.500	Y		Oct 2015
3) L0099 Towed Buoy Antenna BRR-6/6B Reliability Improvements												
3.1) Reliability Improvements ⁽³⁾		2015	General Dynamics IT / Philadelphia, PA	SS / FFP	NSWC Phil	Jan 2015	Oct 2015	49	50.776	Y		Jul 2013
3.1) Reliability Improvements ⁽³⁾		2016	Unknown - C / Unknown	C / FFP	NSWC Phil	Jun 2016	Dec 2016	168	13.613	N	Mar 2016	Apr 2016
3.1) Reliability Improvements ⁽³⁾		2017	Unknown - C / Unknown	C / FFP	NSWC Phil	Apr 2017	Oct 2017	68	62.132	N	Dec 2016	Jan 2017
4) L0097 Submarine Local Area Network (SUBLAN)												
4.1) Hardware		2015	NUWC NPT / NEWPORT, RI	C / TBD	NUWC NPT	Dec 2014	Mar 2015	6	25.167	Y		Sep 2014
4.1) Hardware		2016	NUWC NPT / NEWPORT, RI	C / TBD	NUWC NPT	Dec 2015	Mar 2016	4	24.000	Y		Sep 2015

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	6.869	6.716	14.623	-	14.623	21.929	20.976	21.423	21.874	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	6.869	6.716	14.623	-	14.623	21.929	20.976	21.423	21.874	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	6.869	6.716	14.623	-	14.623	21.929	20.976	21.423	21.874	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of OUTBOARD ELECTRONICS (OE)-538 & OE-592 ANTENNA GROUP (OE-538)

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment					Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2			
Models of Systems Affected: [No Model Specified]			Modification Type: Individual Modification Program					Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> L0080 OE-538/BRC Inc 2													
B Kits													
Recurring													
1.1.1) Equipment - Increment 2 Upgrade Kits - NonOrganic ⁽⁵⁾	- / -	7 / 5.715	6 / 5.968	18 / 12.720	- / -	18 / 12.720	27 / 17.421	24 / 15.975	24 / 17.413	24 / 17.008	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / 5.715	- / 5.968	- / 12.720	- / -	- / 12.720	- / 17.421	- / 15.975	- / 17.413	- / 17.008	Continuing	Continuing	
<i>Subtotal: L0080 OE-538/BRC Inc 2</i>	- / -	7 / 5.715	6 / 5.968	18 / 12.720	- / -	18 / 12.720	27 / 17.421	24 / 15.975	24 / 17.413	24 / 17.008	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 5.715	- / 5.968	- / 12.720	- / -	- / 12.720	- / 17.421	- / 15.975	- / 17.413	- / 17.008	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / -	- / 0.454	- / 0.360	- / 0.716	- / -	- / 0.716	- / 0.809	- / 0.782	- / 0.874	- / 0.841	Continuing	Continuing	
2.2) ShipALT/DSA	- / -	- / 0.700	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.700	
2.3) Other (DSA)	- / -	- / -	- / 0.080	- / 0.244	- / -	- / 0.244	- / 0.650	- / 0.449	- / 0.458	- / 0.467	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 0.000	- / 1.154	- / 0.440	- / 0.960	- / -	- / 0.960	- / 1.459	- / 1.231	- / 1.332	- / 1.308	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> L0080 OE-538/BRC Inc 2	- / 0.000	- / -	- / 0.308	- / 0.943	- / -	- / 0.943	- / 3.049	- / 3.770	- / 2.678	- / 3.558	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / 0.308	- / 0.943	- / -	- / 0.943	- / 3.049	- / 3.770	- / 2.678	- / 3.558	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	0.000	6.869	6.716	14.623	-	14.623	21.929	20.976	21.423	21.874	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 1 / L0080 OE-538/BRC Inc 2

Modification Item 1 of 1: L0080 OE-538/BRC Inc 2

Manufacturer Information

Manufacturer Name: Submarine Antenna Joint Venture	Manufacturer Location: Marion, MA & Manchester, NH
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Aug 2015	Mar 2016	Mar 2017				
Delivery Dates	Aug 2016	Mar 2017	Mar 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Equipment - Increment 2 Upgrade Kits

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	2 / 0.308	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.308
FY 2016	- / -	- / -	- / -	6 / 0.943	- / -	6 / 0.943	- / -	- / -	- / -	- / -	- / -	6 / 0.943
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	17 / 3.049	- / -	- / -	- / -	- / -	17 / 3.049
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	25 / 3.770	- / -	- / -	- / -	25 / 3.770
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 2.678	- / -	- / -	16 / 2.678
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 3.558	- / -	21 / 3.558
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	- / -	- / -	2 / 0.308	6 / 0.943	- / -	6 / 0.943	17 / 3.049	25 / 3.770	16 / 2.678	21 / 3.558	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	-	-	-	-	-	-	-	-	2	-	-	-	3	3	-	-	6	6	5	6	6	6	7	-	6	6	4	-	6	6	34	112
Out	-	-	-	-	-	-	-	-	2	-	-	-	3	3	-	-	6	6	5	6	6	6	7	-	6	6	4	-	6	6	34	112

Footnotes:

⁽⁵⁾ OE-538 Increment 2 upgrade kit cost includes incidental factory labor. Unit cost varies by submarine class and decreases based on Economic Quantity Order. Twenty-four (24) OE-538 Increment 2 systems do not require platform installation funding. These systems include nineteen (19) rotatable pools, two (2) test assets for First Article Test, and three (3) lab assets (two (2) SSBN/SSGN ITF; one (1) LOS ANGELES ITF).

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Exhibit P-3a, Individual Modification: PB 2017 Navy								Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment				Modification Number / Title: 2 / L0087 Submarine High Data Rate Antenna			

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	375.436	3.282	6.071	4.241	-	4.241	3.330	2.164	3.475	8.440	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	375.436	3.282	6.071	4.241	-	4.241	3.330	2.164	3.475	8.440	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	375.436	3.282	6.071	4.241	-	4.241	3.330	2.164	3.475	8.440	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of Submarine High Data Rate Antenna (SubHDR)

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment						Modification Number / Title: 2 / L0087 Submarine High Data Rate Antenna			
Models of Systems Affected: [No Model Specified]			Modification Type: Individual Modification Program					Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0087 Submarine High Data Rate Antenna</i>													
B Kits													
Recurring													
1.1.1) Equipment - SubHDR (Prior Years) - NonOrganic	243 / 272.964	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	243 / 272.964	
1.1.2) Replacement Radomes Installed - NonOrganic ⁽⁶⁾	67 / 15.525	8 / 2.664	17 / 5.450	10 / 3.542	- / -	10 / 3.542	- / -	- / -	- / -	- / -	Continuing	Continuing	
1.1.3) Replacement Radomes Not Installed - Organic	- / -	- / -	- / -	- / -	- / -	- / -	6 / 2.793	3 / 1.871	4 / 3.108	- / -	- / -	13 / 7.772	
1.1.4) RMA Kits - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 8.100	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 288.489	- / 2.664	- / 5.450	- / 3.542	- / -	- / 3.542	- / 2.793	- / 1.871	- / 3.108	- / 8.100	Continuing	Continuing	
<i>Subtotal: L0087 Submarine High Data Rate Antenna</i>	310 / 288.489	8 / 2.664	17 / 5.450	10 / 3.542	- / -	10 / 3.542	6 / 2.793	3 / 1.871	4 / 3.108	12 / 8.100	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 288.489	- / 2.664	- / 5.450	- / 3.542	- / -	- / 3.542	- / 2.793	- / 1.871	- / 3.108	- / 8.100	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 6.652	- / 0.155	- / 0.185	- / 0.215	- / -	- / 0.215	- / 0.170	- / 0.113	- / 0.185	- / 0.160	Continuing	Continuing	
2.2) Other (DSA)	- / 6.016	- / 0.223	- / 0.180	- / 0.212	- / -	- / 0.212	- / 0.207	- / 0.180	- / 0.182	- / 0.180	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 12.668	- / 0.378	- / 0.365	- / 0.427	- / -	- / 0.427	- / 0.377	- / 0.293	- / 0.367	- / 0.340	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: L0087 Submarine High Data Rate Antenna</i>	- / 174.279	- / 0.240	- / 0.256	- / 0.272	- / -	- / 0.272	- / 0.160	- / -	- / -	- / -	- / 1.836	- / 77.043	
<i>Subtotal: Installation</i>	- / 174.279	- / 0.240	- / 0.256	- / 0.272	- / -	- / 0.272	- / 0.160	- / -	- / -	- / -	- / 1.836	- / 77.043	
Total													
Total Cost (Procurement + Support + Installation)	375.436	3.282	6.071	4.241	-	4.241	3.330	2.164	3.475	8.440	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 2 / L0087 Submarine High Data Rate Antenna

Modification Item 1 of 1: L0087 Submarine High Data Rate Antenna

Manufacturer Information

Manufacturer Name: Raytheon	Manufacturer Location: Marlborough, MA
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Apr 2016	Apr 2017				
Delivery Dates	Apr 2016	Apr 2017	Apr 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Submarine High Data Rate Antenna

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	114 / 74.279	15 / 0.240	8 / 0.128	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	137 / 74.647
FY 2015	- / -	- / -	8 / 0.128	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.128
FY 2016	- / -	- / -	- / -	17 / 0.272	- / -	17 / 0.272	- / -	- / -	- / -	- / -	- / -	17 / 0.272
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	10 / 0.160	- / -	- / -	- / -	- / -	10 / 0.160
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	12 / 0.216	12 / 0.216
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	90 / 1.620	90 / 1.620
Total	114 / 74.279	15 / 0.240	16 / 0.256	17 / 0.272	- / -	17 / 0.272	10 / 0.160	- / -	- / -	- / -	102 / 1.836	274 / 77.043

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	86	12	9	10	6	6	6	4	3	3	-	3	6	8	-	3	6	1	-	-	-	-	-	-	-	-	-	-	-	102	274
Out	86	12	9	10	6	6	6	4	3	3	-	3	6	8	-	3	6	1	-	-	-	-	-	-	-	-	-	-	-	102	274

Method of Implementation (Organic): Replacement Radomes Not Installed - Not Installed

Installation Quantity: 13

Footnotes:

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 2 / L0087 Submarine High Data Rate Antenna

⁽⁶⁾ Radome costs for FY15 and following years are higher due to reduced quantity buys in those years, as well as higher escalation costs applied by the vendor. Contract specifies cost break for every five radomes purchased. Additional thirty five (35) antennas procured as follows: twenty-four (24) Ship Construction Navy (SCN) which are transitioning to Fleet Modernization Program (FMP); one (1) for spares; two (2) units for Navy Multi-Band Terminal (NMT) Program; and eight (8) SCN Virginia Class Flight III, resulting in a requirement for 115 Replacement Radomes, thirteen (13) of which do not require installation funds.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	186.866	11.363	9.729	12.896	-	12.896	9.021	6.809	8.406	8.529	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	186.866	11.363	9.729	12.896	-	12.896	9.021	6.809	8.406	8.529	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	186.866	11.363	9.729	12.896	-	12.896	9.021	6.809	8.406	8.529	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR upgrades on SSBN (OHIO) Class submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment						Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)</i>													
B Kits													
Recurring													
1.1.1) Equipment (Prior Years) - NonOrganic	56 / 131.443	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	56 / 131.443	
1.1.2) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic ⁽⁷⁾	6 / 11.575	2 / 4.133	2 / 4.257	4 / 8.770	- / -	4 / 8.770	- / -	- / -	- / -	- / -	- / -	14 / 28.735	
1.1.3) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽⁸⁾	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.795	3 / 0.820	4 / 1.126	- / -	Continuing	Continuing	
1.1.4) Equipment - Mod Kits Increment 1 Ver 5 - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.791	1 / 2.068	Continuing	Continuing	
1.1.5) Equipment - SSBN Production Swingset NRE - Organic	- / 0.571	- / 0.771	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.342	
1.1.6) Equipment - SSBN Production Swingset RE - Organic	- / 0.260	- / 0.442	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.702	
<i>Subtotal: Recurring</i>	<i>- / 143.849</i>	<i>- / 5.346</i>	<i>- / 4.257</i>	<i>- / 8.770</i>	<i>- / -</i>	<i>- / 8.770</i>	<i>- / 0.795</i>	<i>- / 0.820</i>	<i>- / 5.917</i>	<i>- / 2.068</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: L0084 CSRR-SSBN (OHIO)</i>	<i>62 / 143.849</i>	<i>2 / 5.346</i>	<i>2 / 4.257</i>	<i>4 / 8.770</i>	<i>- / -</i>	<i>4 / 8.770</i>	<i>3 / 0.795</i>	<i>3 / 0.820</i>	<i>6 / 5.917</i>	<i>1 / 2.068</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 143.849</i>	<i>- / 5.346</i>	<i>- / 4.257</i>	<i>- / 8.770</i>	<i>- / -</i>	<i>- / 8.770</i>	<i>- / 0.795</i>	<i>- / 0.820</i>	<i>- / 5.917</i>	<i>- / 2.068</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
2.1) ShipALT/DSA Nonrecurring ⁽⁹⁾	- / 4.562	- / -	- / 0.450	- / 0.450	- / -	- / 0.450	- / 0.375	- / 0.152	- / 0.150	- / 0.150	Continuing	Continuing	
2.2) Enterprise Change Request ⁽¹⁰⁾	- / 4.536	- / 0.849	- / 0.625	- / 0.531	- / -	- / 0.531	- / 0.424	- / 0.450	- / 0.305	- / 0.310	Continuing	Continuing	
2.3) Data/Logistics ⁽¹¹⁾	- / 4.951	- / -	- / 0.624	- / 0.624	- / -	- / 0.624	- / 0.325	- / 0.491	- / 0.400	- / 0.450	Continuing	Continuing	
2.4) Production Support	- / 10.628	- / 0.248	- / 0.249	- / 0.511	- / -	- / 0.511	- / 0.046	- / 0.048	- / 0.200	- / 0.124	Continuing	Continuing	
2.5) Other (DSA Recurring)	- / 6.649	- / 0.493	- / 0.484	- / 0.445	- / -	- / 0.445	- / 0.607	- / 0.554	- / 0.431	- / 0.526	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 31.326</i>	<i>- / 1.590</i>	<i>- / 2.432</i>	<i>- / 2.561</i>	<i>- / -</i>	<i>- / 2.561</i>	<i>- / 1.777</i>	<i>- / 1.695</i>	<i>- / 1.486</i>	<i>- / 1.560</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)</i>	<i>- / 11.691</i>	<i>- / 4.427</i>	<i>- / 3.040</i>	<i>- / 1.565</i>	<i>- / -</i>	<i>- / 1.565</i>	<i>- / 6.449</i>	<i>- / 4.294</i>	<i>- / 1.003</i>	<i>- / 4.901</i>	Continuing	Continuing	
<i>Subtotal: Installation</i>	<i>- / 11.691</i>	<i>- / 4.427</i>	<i>- / 3.040</i>	<i>- / 1.565</i>	<i>- / -</i>	<i>- / 1.565</i>	<i>- / 6.449</i>	<i>- / 4.294</i>	<i>- / 1.003</i>	<i>- / 4.901</i>	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	186.866	11.363	9.729	12.896	-	12.896	9.021	6.809	8.406	8.529	Continuing	Continuing	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)
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Modification Item 1 of 1: L0084 CSRR-SSBN (OHIO)

Manufacturer Information

Manufacturer Name: SAIC ⁽¹²⁾	Manufacturer Location: Charleston, SC
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Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12
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Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Feb 2016	Apr 2017				
Delivery Dates	Apr 2016	Feb 2017	Apr 2018				

Installation Information

Method of Implementation: [none specified]:: Installation Name: SSBN Ohio

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	16 / 11.691	3 / 4.427	- / -	1 / 1.565	- / 0.000	1 / 1.565	- / -	- / -	- / -	- / -	- / 0.000	20 / 17.683
FY 2015	- / -	- / -	2 / 3.040	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.040
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.224	- / -	- / -	- / -	- / -	2 / 3.224
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.225	2 / 3.321	- / -	- / -	- / -	4 / 6.546
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.973	- / -	- / -	- / -	3 / 0.973
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.003	- / -	- / -	3 / 1.003
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 4.901	- / -	6 / 4.901
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	16 / 11.691	3 / 4.427	2 / 3.040	1 / 1.565	- / -	1 / 1.565	4 / 6.449	5 / 4.294	3 / 1.003	6 / 4.901	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	15	1	-	-	-	1	-	2	-	1	1	-	1	-	2	-	1	1	2	1	1	1	1	2	1	-	1	1	3	1	1	41
Out	15	1	-	-	-	1	-	1	1	1	1	-	1	-	2	-	1	1	2	1	1	1	1	2	1	-	1	1	3	1	1	41

Footnotes:

⁽⁷⁾ Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR Inc 1 V3 price of cabling is not following the normal escalation rate due to copper price increases. Installation funds are required by the installing activity 3 months prior to the start of the installation. Due to Fleet rescheduling of availability period as part of the SSBN optimized field plan study, some installations have been rescheduled as follows: 1 mod kit procured in FY13 is now installed in FY15 using Prior Year Funding; 1 mod kit procured in FY13 is now installed in FY17; 2 mod kits procured in FY14 are now installed in FY16 using FY15 funds; 1 mod kit procured in FY14 is now installed in FY17; 2 mod kits procured in FY15 are now installed in FY16 and FY17 using FY16 funds; 2 mod kits procured in FY16 are installed in FY18; 1 mod kit procured in FY17 is installed

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 3 / L0084 CSRR-SSBN (OHIO)
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in FY19 using FY18 funds; and 2 mod kits procured in FY17 are installed in FY19. Two SSBN CSRR Inc1V3 procurements in fiscal year 17 will not be installed until second quarter fiscal year 19 due to the submarine operational schedule which dictates the submarines availability for modernization. The submarine availability windows fluctuate to optimize SSBN Operational Availability (Ao), a driving factor outside the CSRR program's control.

(8) CSRR modernization kit unit cost and installation cost varies between versions due to different capabilities/configurations.

(9) Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.

(10) The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new baselines or for changes that impact baselines.

(11) Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.

(12) Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment				Modification Number / Title: 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	27.404	4.544	-	1.052	-	1.052	2.750	1.607	0.460	3.180	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	27.404	4.544	-	1.052	-	1.052	2.750	1.607	0.460	3.180	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	27.404	4.544	-	1.052	-	1.052	2.750	1.607	0.460	3.180	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR and upgrades on SSGN (OHIO) Class Submarines

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment					Modification Number / Title: 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0084 CSRR-SSGN (OHIO) Mod Upgrades</i>													
B Kits													
Recurring													
1.1.1) Equipment - Mod Kits (Prior Years) - NonOrganic	8 / 5.115	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 5.115	
1.1.2) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic ⁽¹³⁾	3 / 6.313	1 / 2.304	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 8.617	
1.1.3) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽¹⁴⁾	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.230	- / -	- / -	- / -	- / -	4 / 1.230	
1.1.4) Equipment - Mod Kits Increment 1 Ver 5 - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.251	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 11.428	- / 2.304	- / -	- / -	- / -	- / -	- / 1.230	- / -	- / -	- / 2.251	Continuing	Continuing	
<i>Subtotal: L0084 CSRR-SSGN (OHIO) Mod Upgrades</i>	11 / 11.428	1 / 2.304	- / -	- / -	- / -	- / -	4 / 1.230	- / -	- / -	1 / 2.251	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.428	- / 2.304	- / -	- / -	- / -	- / -	- / 1.230	- / -	- / -	- / 2.251	Continuing	Continuing	
Support (All Modification Items)													
2.1) Enterprise Change Request/Nonrecurring ⁽¹⁵⁾	- / 2.346	- / 0.447	- / -	- / -	- / -	- / -	- / 0.456	- / -	- / -	- / 0.364	Continuing	Continuing	
2.2) ShipALT/DSA Nonrecurring ⁽¹⁶⁾	- / 1.621	- / -	- / -	- / 0.522	- / -	- / 0.522	- / 0.505	- / -	- / 0.320	- / 0.280	Continuing	Continuing	
2.3) Data/Logistics ⁽¹⁷⁾	- / 3.617	- / -	- / -	- / 0.530	- / -	- / 0.530	- / 0.485	- / -	- / 0.140	- / 0.150	Continuing	Continuing	
2.4) Production Support	- / 1.107	- / 0.135	- / -	- / -	- / -	- / -	- / 0.074	- / -	- / -	- / 0.135	Continuing	Continuing	
2.5) Other (DSA Recurring)	- / 1.205	- / 0.354	- / -	- / -	- / -	- / -	- / -	- / 0.309	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 9.896	- / 0.936	- / -	- / 1.052	- / -	- / 1.052	- / 1.520	- / 0.309	- / 0.460	- / 0.929	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: L0084 CSRR-SSGN (OHIO) Mod Upgrades</i>	- / 6.080	- / 1.304	- / -	- / -	- / -	- / -	- / -	- / 1.298	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 6.080	- / 1.304	- / -	- / -	- / -	- / -	- / -	- / 1.298	- / -	- / -	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	27.404	4.544	-	1.052	-	1.052	2.750	1.607	0.460	3.180	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades

Modification Item 1 of 1: L0084 CSRR-SSGN (OHIO) Mod Upgrades

Manufacturer Information

Manufacturer Name: SAIC ⁽¹⁸⁾	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 1	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	May 2015						
Delivery Dates	May 2016						

Installation Information

Method of Implementation: [none specified]:: Installation Name: SSGN OHIO

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 6.080	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	7 / 6.080
FY 2015	- / -	1 / 1.304	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.304
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.298	- / -	- / -	Continuing	Continuing
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.105	1 / 1.105
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	7 / 6.080	1 / 1.304	- / -	- / -	- / -	- / -	- / -	4 / 1.298	- / -	- / -	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	5	1	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	Cont.	Cont.
Out	5	1	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	Cont.	Cont.

Footnotes:
⁽¹³⁾ Quantities reflect alignment with fleet installation availabilities. There are only 4 SSGN submarines in the Fleet. The number of SSGN submarines available in any given year are, therefore limited. The ability to shift installations from one submarine to another is often not possible. CSRR Inc 1 V3 price of cabling is not following the normal escalation rate due to copper price increases. Installation funds are required by the installing activity 3 months prior to the start of the installation. Installation of 1 mod kit delayed to FY15 (procurement in FY13) due to Fleet rescheduling period.
⁽¹⁴⁾ CSRR modernization kit unit cost and installation cost varies between versions due to different capabilities/configurations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 4 / L0084 CSRR-SSGN (OHIO) Mod Upgrades

(15) The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new baselines or for changes that impact baselines.

(16) Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.

(17) Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.

(18) Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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Exhibit P-3a, Individual Modification: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 5 / L0084 CSRR-SSN (SEAWOLF)
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	49.305	1.739	-	3.266	-	3.266	1.707	1.116	0.422	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	49.305	1.739	-	3.266	-	3.266	1.707	1.116	0.422	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	49.305	1.739	-	3.266	-	3.266	1.707	1.116	0.422	-	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR and upgrades on SSN (SEAWOLF) Class Submarines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment					Modification Number / Title: 5 / L0084 CSRR-SSN (SEAWOLF)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)</i>													
B Kits													
Recurring													
1.1.1) Equipment (Prior Years) - NonOrganic	10 / 32.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 32.150	
1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽¹⁹⁾	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.515	1 / 0.265	- / -	- / -	- / -	3 / 0.780	
<i>Subtotal: Recurring</i>	- / 32.150	- / -	- / -	- / -	- / -	- / -	- / 0.515	- / 0.265	- / -	- / -	- / -	- / 32.930	
<i>Subtotal: L0084 CSRR-SSN (SEAWOLF)</i>	10 / 32.150	- / -	- / -	- / -	- / -	- / -	2 / 0.515	1 / 0.265	- / -	- / -	- / -	13 / 32.930	
<i>Subtotal: Procurement, All Modification Items</i>	- / 32.150	- / -	- / -	- / -	- / -	- / -	- / 0.515	- / 0.265	- / -	- / -	- / -	- / 32.930	
Support (All Modification Items)													
2.1) ShipALT/DSA Nonrecurring ⁽²⁰⁾	- / 1.563	- / -	- / -	- / 0.425	- / -	- / 0.425	- / 0.375	- / -	- / -	- / -	Continuing	Continuing	
2.2) Enterprise Change Request /Nonrecurring ⁽²¹⁾	- / 2.117	- / -	- / -	- / -	- / -	- / -	- / 0.325	- / 0.040	- / -	- / -	Continuing	Continuing	
2.3) Data/Logistics ⁽²²⁾	- / 1.825	- / -	- / -	- / 0.514	- / -	- / 0.514	- / 0.461	- / -	- / -	- / -	Continuing	Continuing	
2.4) Production Support	- / 1.704	- / -	- / -	- / -	- / -	- / -	- / 0.031	- / 0.016	- / -	- / -	Continuing	Continuing	
2.5) Other (DSA Recurring)	- / 2.337	- / 0.190	- / -	- / 0.265	- / -	- / 0.265	- / -	- / 0.127	- / 0.078	- / -	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 9.546	- / 0.190	- / -	- / 1.204	- / -	- / 1.204	- / 1.192	- / 0.183	- / 0.078	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)</i>	- / 7.609	- / 1.549	- / -	- / 2.062	- / -	- / 2.062	- / -	- / 0.668	- / 0.344	- / -	- / -	- / 12.232	
<i>Subtotal: Installation</i>	- / 7.609	- / 1.549	- / -	- / 2.062	- / -	- / 2.062	- / -	- / 0.668	- / 0.344	- / -	- / -	- / 12.232	
Total													
Total Cost (Procurement + Support + Installation)	49.305	1.739	-	3.266	-	3.266	1.707	1.116	0.422	-	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 5 / L0084 CSRR-SSN (SEAWOLF)

Modification Item 1 of 1: L0084 CSRR-SSN (SEAWOLF)

Manufacturer Information

Manufacturer Name: SAIC ⁽²³⁾				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates							
Delivery Dates							

Installation Information

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

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	8 / 7.609	1 / 1.549	- / -	1 / 2.062	- / 0.000	1 / 2.062	- / -	- / -	- / -	- / -	- / 0.000	10 / 11.220
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.668	- / -	- / -	- / -	2 / 0.668
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.344	- / -	- / -	1 / 0.344
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 7.609	1 / 1.549	- / -	1 / 2.062	- / -	1 / 2.062	- / -	2 / 0.668	1 / 0.344	- / -	- / -	13 / 12.232

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	8	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-
Out	8	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-

Footnotes:

- ⁽¹⁹⁾ CSRR modernization kit unit cost and installation cost varies between versions due to different capabilities/configurations.
- ⁽²⁰⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.
- ⁽²¹⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new baselines or for changes that impact baselines.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 5 / L0084 CSRR-SSN (SEAWOLF)

⁽²²⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.

⁽²³⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment				Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	36.544	8.257	8.608	9.704	-	9.704	6.785	2.546	11.511	11.279	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	36.544	8.257	8.608	9.704	-	9.704	6.785	2.546	11.511	11.279	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	36.544	8.257	8.608	9.704	-	9.704	6.785	2.546	11.511	11.279	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR upgrades on VIRGINIA Class submarines

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment					Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>													
B Kits													
Recurring													
1.1.1) Equipment - Mod Kits Increment 1 Ver 2 (FLT 1 & 2) - NonOrganic	4 / 4.872	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 4.872	
1.1.2) Equipment - Baseline upgrade Increment 1 Ver 3 - NonOrganic ⁽²⁴⁾	4 / 8.963	2 / 5.039	1 / 2.595	2 / 5.346	- / -	2 / 5.346	- / -	- / -	- / -	- / -	- / -	9 / 21.943	
1.1.3) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽²⁵⁾	- / -	- / -	- / -	1 / 0.258	- / -	1 / 0.258	1 / 0.265	3 / 0.820	4 / 1.126	4 / 1.159	Continuing	Continuing	
1.1.4) Equipment - Mod Kits Increment 1 Ver 5 - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 8.763	1 / 2.068	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 13.835	- / 5.039	- / 2.595	- / 5.604	- / -	- / 5.604	- / 0.265	- / 0.820	- / 9.889	- / 3.227	Continuing	Continuing	
<i>Subtotal: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>	8 / 13.835	2 / 5.039	1 / 2.595	3 / 5.604	- / -	3 / 5.604	1 / 0.265	3 / 0.820	7 / 9.889	5 / 3.227	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 13.835	- / 5.039	- / 2.595	- / 5.604	- / -	- / 5.604	- / 0.265	- / 0.820	- / 9.889	- / 3.227	Continuing	Continuing	
Support (All Modification Items)													
2.1) Engineering Nonrecurring	- / 0.625	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.625	
2.2) Data/Logistics ⁽²⁶⁾	- / 1.984	- / -	- / 0.450	- / 0.440	- / -	- / 0.440	- / 0.430	- / 0.460	- / -	- / -	Continuing	Continuing	
2.3) ShipALT/DSA Nonrecurring ⁽²⁷⁾	- / 3.630	- / -	- / 0.350	- / 0.347	- / -	- / 0.347	- / 0.316	- / 0.272	- / -	- / -	Continuing	Continuing	
2.4) Enterprise Change Request ⁽²⁸⁾	- / 2.238	- / 0.374	- / 0.414	- / 0.478	- / -	- / 0.478	- / 0.471	- / 0.445	- / -	- / 0.200	Continuing	Continuing	
2.5) Production Support	- / 2.021	- / 0.302	- / 0.153	- / 0.336	- / -	- / 0.336	- / 0.016	- / 0.049	- / 0.292	- / 0.050	Continuing	Continuing	
2.6) Other (DSA Recurring)	- / 1.206	- / 0.420	- / 0.275	- / 0.248	- / -	- / 0.248	- / 0.335	- / 0.176	- / 0.327	- / 0.410	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 11.704	- / 1.096	- / 1.642	- / 1.849	- / -	- / 1.849	- / 1.568	- / 1.402	- / 0.619	- / 0.660	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades</i>	- / 11.005	- / 2.122	- / 4.371	- / 2.251	- / -	- / 2.251	- / 4.952	- / 0.324	- / 1.003	- / 7.392	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 11.005	- / 2.122	- / 4.371	- / 2.251	- / -	- / 2.251	- / 4.952	- / 0.324	- / 1.003	- / 7.392	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	36.544	8.257	8.608	9.704	-	9.704	6.785	2.546	11.511	11.279	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

Modification Item 1 of 1: L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

Manufacturer Information							
Manufacturer Name: SAIC ⁽²⁹⁾				Manufacturer Location: Charleston, SC			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Feb 2016	Jan 2017				
Delivery Dates	Apr 2016	Feb 2017	Jan 2018				

Installation Information

Method of Implementation: Method:: Installation Name: Virginia Class

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	7 / 11.005	1 / 2.122	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 13.127
FY 2015	- / -	- / -	2 / 4.371	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.371
FY 2016	- / -	- / -	- / -	1 / 2.251	- / -	1 / 2.251	- / -	- / -	- / -	- / -	- / -	1 / 2.251
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	3 / 4.952	- / -	- / -	- / -	- / -	3 / 4.952
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.324	- / -	- / -	- / -	1 / 0.324
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.003	- / -	- / -	3 / 1.003
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 7.392	- / -	7 / 7.392
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	7 / 11.005	1 / 2.122	2 / 4.371	1 / 2.251	- / -	1 / 2.251	3 / 4.952	1 / 0.324	3 / 1.003	7 / 7.392	Continuing	Continuing

Installation Schedule																																
	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	7	-	-	1	-	-	-	-	-	1	1	-	-	1	-	2	1	-	-	1	-	-	-	2	-	-	1	1	2	4	Cont.	Cont.
Out	7	-	-	-	1	-	-	-	-	2	-	-	-	1	-	2	1	-	-	1	-	-	-	2	-	-	1	1	2	4	Cont.	Cont.

Footnotes:

⁽²⁴⁾ Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR Inc 1 V3 price of cabling is not following the normal escalation rate due to copper price increases. Installation funds are required by the installing activity 3 months prior to the start of the installation. Installation of 1 mod kit delayed to FY15 (procurement in FY13) due to Fleet rescheduling of availability period.

⁽²⁵⁾ CSRR modernization kit unit cost and installation cost varies between versions due to different capabilities/configurations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 6 / L0084 CSRR-SSN (VIRGINIA) Mod Upgrades

- ⁽²⁶⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.
- ⁽²⁷⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.
- ⁽²⁸⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new baselines or for changes that impact baselines.
- ⁽²⁹⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12				P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment			Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	124.854	20.541	23.664	14.522	-	14.522	9.772	6.479	3.622	2.692	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	124.854	20.541	23.664	14.522	-	14.522	9.772	6.479	3.622	2.692	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	124.854	20.541	23.664	14.522	-	14.522	9.772	6.479	3.622	2.692	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procurement and Installation of CSRR and upgrades on LOS ANGELES Class Submarines

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12					P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment					Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0604503N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>													
B Kits													
Recurring													
1.1.1) Equipment - Mod Kits Increment 1 Ver 3 - NonOrganic ⁽³⁰⁾	23 / 78.230	2 / 8.195	4 / 16.986	1 / 4.374	- / -	1 / 4.374	1 / 4.505	- / -	- / -	- / -	- / -	31 / 112.290	
1.1.2) Equipment - Mod Kits Increment 1 Ver 4 - NonOrganic ⁽³¹⁾	- / -	- / -	- / -	1 / 0.258	- / -	1 / 0.258	6 / 1.591	4 / 1.092	3 / 0.844	1 / 0.290	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 78.230	- / 8.195	- / 16.986	- / 4.632	- / -	- / 4.632	- / 6.096	- / 1.092	- / 0.844	- / 0.290	Continuing	Continuing	
<i>Subtotal: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>	23 / 78.230	2 / 8.195	4 / 16.986	2 / 4.632	- / -	2 / 4.632	7 / 6.096	4 / 1.092	3 / 0.844	1 / 0.290	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 78.230	- / 8.195	- / 16.986	- / 4.632	- / -	- / 4.632	- / 6.096	- / 1.092	- / 0.844	- / 0.290	Continuing	Continuing	
Support (All Modification Items)													
2.1) Enterprise Change Request/Nonrecurring ⁽³²⁾	- / 3.767	- / 0.379	- / 1.303	- / 0.850	- / -	- / 0.850	- / 0.540	- / 0.620	- / 0.300	- / 0.300	Continuing	Continuing	
2.2) ShipALT/DSA Nonrecurring ⁽³³⁾	- / 1.441	- / -	- / 0.257	- / 0.372	- / -	- / 0.372	- / -	- / -	- / 0.250	- / 0.260	Continuing	Continuing	
2.3) Data/Logistics ⁽³⁴⁾	- / 2.000	- / -	- / 0.448	- / 0.552	- / -	- / 0.552	- / -	- / -	- / 0.226	- / 0.275	Continuing	Continuing	
2.4) Production Support	- / 15.522	- / 0.492	- / 0.708	- / 0.257	- / -	- / 0.257	- / 0.366	- / 0.064	- / 0.049	- / 0.017	Continuing	Continuing	
2.5) Other (DSA Recurring) ⁽³⁵⁾	- / 17.164	- / 0.864	- / 0.784	- / 0.913	- / -	- / 0.913	- / 0.666	- / 0.916	- / 0.617	- / 0.518	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 19.894	- / 1.735	- / 3.500	- / 2.944	- / -	- / 2.944	- / 1.572	- / 1.600	- / 1.442	- / 1.370	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades</i>	- / 26.730	- / 10.611	- / 3.178	- / 6.946	- / -	- / 6.946	- / 2.104	- / 3.787	- / 1.336	- / 1.032	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 26.730	- / 10.611	- / 3.178	- / 6.946	- / -	- / 6.946	- / 2.104	- / 3.787	- / 1.336	- / 1.032	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	124.854	20.541	23.664	14.522	-	14.522	9.772	6.479	3.622	2.692	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

Modification Item 1 of 1: L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

Manufacturer Information

Manufacturer Name: SAIC ⁽³⁶⁾	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 12

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Aug 2015	Dec 2015	Jan 2017				
Delivery Dates	Aug 2016	Dec 2016	Jan 2018				

Installation Information

Method of Implementation: Method:: Installation Name: LA Class

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	16 / 26.730	7 / 10.611	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	23 / 37.341
FY 2015	- / -	- / -	2 / 3.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.178
FY 2016	- / -	- / -	- / -	4 / 6.946	- / -	4 / 6.946	- / -	- / -	- / -	- / -	- / -	4 / 6.946
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.104	- / -	- / -	- / -	- / -	2 / 2.104
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 3.787	- / -	- / -	- / -	7 / 3.787
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 1.336	- / -	- / -	4 / 1.336
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 1.032	- / -	3 / 1.032
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.354	1 / 0.354
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	16 / 26.730	7 / 10.611	2 / 3.178	4 / 6.946	- / -	4 / 6.946	2 / 2.104	7 / 3.787	4 / 1.336	3 / 1.032	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	15	1	-	3	1	3	-	-	1	1	1	-	2	1	-	2	-	1	3	1	2	-	2	-	2	-	1	2	-	Cont.	Cont.
Out	14	1	1	-	3	4	-	-	-	4	-	1	-	1	-	-	2	1	3	1	2	-	2	-	1	1	1	2	-	Cont.	Cont.

Footnotes:
⁽³⁰⁾ Quantities reflect alignment with fleet installation availabilities. The number and class of submarines available in any given year are very limited and consequently, the ability to shift installations from one submarine to another is often not possible. CSRR Inc 1 V3 price of cabling is not following the normal escalation rate due to copper price increases. Price also includes cost to procure two (2) Radio Frequency Distribution and Control Systems (RFDACS) to support Legacy Ultra High Frequency (UHF) communications on LOS ANGELES Class platforms. Installation funds are required by the installing activity 3 months prior to the start of the installation. Installation of 1 mod kit delayed to FY18 (procurement in FY16) due to Fleet rescheduling of availability period.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 12	P-1 Line Item Number / Title: 3130 / Submarine Communication Equipment	Modification Number / Title: 7 / L0084 CSRR-SSN LOS ANGELES (LA) Mod Upgrades

⁽³¹⁾ CSRR modernization kit unit cost and installation cost varies between versions due to different capabilities/configurations.

⁽³²⁾ The Enterprise Change Request (ECR) is a configuration control process rigorously implemented for the approval of new baselines or for changes that impact baselines.

⁽³³⁾ Funding supports development of Government Furnished Information (GFI) package for the planning yard in the year prior to installation and preparation of ship installation drawings in the year of installation.

⁽³⁴⁾ Funds the initial logistics package, consisting of multiple individual products, for each modernization baseline (version). The logistics package is funded in the year prior to and the year that the first modernization kit is procured for each CSRR version on each submarine class.

⁽³⁵⁾ DSA Recurring Cost includes funding for CSRR planning yard activities.

⁽³⁶⁾ Production lead time for upgrade kits varies from 3 to 12 months depending on the contents of each kit and the specific components being modernized.

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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 02: Communications & Electronics Equip / BSA 13: Satellite Communications	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 237	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,206.567	13.743	30.892	14.414	-	14.414	7.160	10.542	10.775	11.005	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,206.567	13.743	30.892	14.414	-	14.414	7.160	10.542	10.775	11.005	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,206.567	13.743	30.892	14.414	-	14.414	7.160	10.542	10.775	11.005	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	2.938	1.254	0.056	-	0.056	0.039	0.077	0.174	0.281	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Satellite Communications Systems by \$0.60M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Satellite Communications (SATCOM) Systems P-1 line provides funds for procurement of shipboard terminal equipment for ship-to-ship, ship-to-shore and ship-to-aircraft tactical communications via earth orbiting relay satellites. This includes Radio Frequency (RF) equipment and baseband equipment assembled and grouped into systems and subsystems structured to address specific naval communications requirements. These systems provide processors and peripheral equipment that control the RF links for message traffic, direct data transfer and secure voice communications. They are selected and oriented by communications traffic levels, types of communications and operational missions.

[P3A / (NR117) Global Broadcast Service (GBS)]: GLOBAL BROADCAST SERVICE (GBS - NR117): GBS is a Joint Military Satellite Communications (MILSATCOM) program with the Air Force as Executive Agent for all services. GBS provides a continuous, high speed, one way information flow of high volume data to units ashore, afloat or special operations. GBS supports routine operations, training and military exercises, special activities, crises, situational awareness, weapons targeting, reconnaissance and the transition to and conduct of opposed operations short of nuclear war. Deployment of GBS internet protocol (IP) terminals will allow expanded use of military intelligence collection in a broader spectrum using MILSATCOM architecture. The Navy GBS Split IP effort enables near-real-time duplex asymmetric communications connectivity to ships/subs. GBS plays a pivotal role in an Anti Access Area Denial (A2AD) scenario.

[P3A - 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat]: CBSP will support the procurement and installation of a commercial terminal and service architecture that will eventually replace the Inmarsat program (Inmarsat: PCs and Inmarsat B HSD: MCMs, DDGs, CGS) and Commercial Wideband Satellite Program (WSC-8 Large Decks). The associated architectures significantly increase data throughput, Navy Anti-Access Area Denial posture, and SATCOM reliability and space resiliency by providing band diversity, assured access, and redundancy for MILSATCOM. Included in the program are Small Ship Variant (SSV - Patrol Coastal or Mine Countermeasure Ships), Unit Level Variant (ULV - examples are Guided Missile Destroyers or Guided Missile Frigates), and Force Level Variant (FLV - large combatant ships such as carriers).

[P3A - 3 / (NR118) JMINI CS Shore]: The Joint Ultra-High Frequency (UHF) Military Satellite communication (MILSATCOM) Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5 and 25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assigned Single Access (DASA) channels to maximize existing highly sought after SATCOM resources used to support operational strike missions as well as joint training and tactical exercises. The system provides decentralized we-based management of those resources for use as a situational awareness tool for Combatant Commanders and SATCOM Support Centers. The JMINI CS is required to operate beyond the original End of Life (EoL) in 2015 in order to continue to support mission critical operations through at least 2033. The globally integrated system consists of three major subsystems:

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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 02: Communications & Electronics Equip / BSA 13: Satellite Communications		P-1 Line Item Number / Title: 3215 / Satellite Communications Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: 237	Item MDAP/MAIS Code(s): N/A	
<p>Network Management System, Satellite Access Controller and the control terminals. The JMINI CS system refresh effort will replace obsolete and unsupported components or subsystems while maintaining interoperability with existing systems. Design and integration efforts were funded with RDTEN.</p>		

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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 02: Communications & Electronics Equip /
BSA 13: Satellite Communications **P-1 Line Item Number / Title:**
3215 / Satellite Communications Systems

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

Line Item MDAP/MAIS Code: 237 **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Satellite Communications Systems			- / 881.385	- / 0.300	- / 0.600	- / -	- / -	- / -
P-3a	1 / (NR117) Global Broadcast Service (GBS) (TBD)			- / 188.908	- / 3.913	- / 13.701	- / 9.672	- / -	- / 9.672
P-3a	2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat (upgrade)			- / 130.336	- / 2.982	- / 12.100	- / 4.742	- / -	- / 4.742
P-3a	3 / (NR118) JMINI CS Shore (TBD)			- / 5.938	- / 6.548	- / 4.491	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 1,206.567	- / 13.743	- / 30.892	- / 14.414	- / -	- / 14.414
Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Satellite Communications Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / (NR117) Global Broadcast Service (GBS) (TBD)			- / 2.883	- / 3.116	- / 3.184	- / 3.253	- / -	- / 228.630
P-3a	2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat (upgrade)			- / 4.277	- / 7.426	- / 7.591	- / 7.752	Continuing	Continuing
P-3a	3 / (NR118) JMINI CS Shore (TBD)			- / -	- / -	- / -	- / -	- / -	- / 16.977
P-40	Total Gross/Weapon System Cost			- / 7.160	- / 10.542	- / 10.775	- / 11.005	Continuing	Continuing

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

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

Justification:
FY 2017 continues the procurement of Global Broadcast System (GBS) Portable and Afloat Receive Terminals and Force Level Variant (FLV) Commercial Broadband Satellite Program (CBSP) terminals.

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Exhibit P-5, Cost Analysis: PB 2017 Navy					Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13			P-1 Line Item Number / Title: 3215 / Satellite Communications Systems			Item Number / Title [DODIC]: 1 / Satellite Communications Systems		
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)			881.385	0.300	0.600	-	-	-
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			881.385	0.300	0.600	-	-	-
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			881.385	0.300	0.600	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)			-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - (NR106) SHF Terminal Cost																		
Recurring Cost																		
1.1.1) SHF: AN/GSC-52B Modernization of Enterprise Terminals (MET) Prior Years	-	-	10.698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	10.698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - (NR106) SHF Terminal Cost	-	-	10.698	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - (NR107) Navy Extremely High Frequency Satellite Program (NESP) Cost																		
Recurring Cost																		
2.1.1) NESP - Cipher Text TIP /Thin Line Upgrade Kit (Afloat) Prior Years	-	-	856.861	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	856.861	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - (NR107) Navy Extremely High Frequency Satellite Program (NESP) Cost	-	-	856.861	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - (NR112) Commercial Broadcast Satellite Program (CBSP) Ashore Cost																		
Recurring Cost																		
3.1.1) CBSP Unit Level Variant (ULV)/ Force Level Variant (FLV) Prior Years	-	-	8.051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13						P-1 Line Item Number / Title: 3215 / Satellite Communications Systems						Item Number / Title [DODIC]: 1 / Satellite Communications Systems					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	8.051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - (NR112) Commercial Broadcast Satellite Program (CBSP) Ashore Cost</i>	-	-	8.051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - (NR127) Spectral Warrior (SW) / Spider Net (SN) Cost																		
Recurring Cost																		
4.1.1) SW/SN - Spectrum Analyzer System Prior Years	-	-	4.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	4.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - (NR127) Spectral Warrior (SW) / Spider Net (SN) Cost</i>	-	-	4.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - (NR776) Non-FMP Installation (Shore) Cost																		
Recurring Cost																		
5.1.1) CBSP Ashore	-	-	1.452	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	1.452	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - (NR776) Non-FMP Installation (Shore) Cost</i>	-	-	1.452	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
Support - (NR776) Non-FMP Pre Installation Design Cost																		
6.1) CBSP Ashore	-	-	0.323	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - (NR776) Non-FMP Pre Installation Design Cost</i>	-	-	0.323	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	881.385	-	-	0.300	-	-	0.600	-	-	-	-	-	-	-	-	-

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3215 / Satellite Communications Systems				Modification Number / Title: 1 / (NR117) Global Broadcast Service (GBS)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	188.908	3.913	13.701	9.672	-	9.672	2.883	3.116	3.184	3.253	-	228.630
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	188.908	3.913	13.701	9.672	-	9.672	2.883	3.116	3.184	3.253	-	228.630
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	188.908	3.913	13.701	9.672	-	9.672	2.883	3.116	3.184	3.253	-	228.630
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

GLOBAL BROADCAST SERVICE (GBS - NR117): GBS is a Joint Military Satellite Communications (MILSATCOM) program with the Air Force as Executive Agent for all services. GBS provides a continuous, high speed, one way information flow of high volume data to units ashore, afloat or special operations. GBS supports routine operations, training and military exercises, special activities, crises, situational awareness, weapons targeting, reconnaissance and the transition to and conduct of opposed operations short of nuclear war. Deployment of GBS internet protocol (IP) terminals will allow expanded use of military intelligence collection in a broader spectrum using MILSATCOM architecture. The Navy GBS Split IP effort enables near-real-time duplex asymmetric communications connectivity to ships/subs. GBS plays a pivotal role in an Anti Access Area Denial (A2AD) scenario.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3215 / Satellite Communications Systems						Modification Number / Title: 1 / (NR117) Global Broadcast Service (GBS)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: (NR117) Global Broadcast Service (GBS)</i>													
B Kits													
Recurring													
1.1.1) Afloat Receive Terminal - NonOrganic ⁽¹⁾	147 / 95.489	1 / 0.484	11 / 5.324	11 / 5.425	- / -	11 / 5.425	1 / 0.503	- / -	- / -	- / -	- / -	171 / 107.225	
1.1.2) Portable Receive Terminal - Organic ⁽²⁾	39 / 8.507	1 / 0.231	8 / 1.883	9 / 2.158	- / -	9 / 2.158	5 / 1.222	12 / 2.962	12 / 2.989	13 / 3.137	- / -	99 / 23.089	
1.1.3) Modem Upgrades - NonOrganic	120 / 10.744	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	120 / 10.744	
1.1.4) Interim Modem Upgrades - NonOrganic	125 / 0.880	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	125 / 0.880	
<i>Subtotal: Recurring</i>	- / 115.620	- / 0.715	- / 7.207	- / 7.583	- / -	- / 7.583	- / 1.725	- / 2.962	- / 2.989	- / 3.137	- / -	- / 141.938	
<i>Subtotal: (NR117) Global Broadcast Service (GBS)</i>	431 / 115.620	2 / 0.715	19 / 7.207	20 / 7.583	- / -	20 / 7.583	6 / 1.725	12 / 2.962	12 / 2.989	13 / 3.137	- / -	515 / 141.938	
<i>Subtotal: Procurement, All Modification Items</i>	- / 115.620	- / 0.715	- / 7.207	- / 7.583	- / -	- / 7.583	- / 1.725	- / 2.962	- / 2.989	- / 3.137	- / -	- / 141.938	
Support (All Modification Items)													
2.1) Production Support	- / 21.652	- / 0.056	- / 0.304	- / 0.235	- / -	- / 0.235	- / 0.083	- / 0.154	- / 0.195	- / 0.116	- / -	- / 22.795	
2.2) Shore Pre Installation Design	- / 0.264	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.264	
2.3) Afloat Receive Terminal DSA	- / 17.555	- / 0.742	- / 0.967	- / 0.296	- / -	- / 0.296	- / 0.122	- / -	- / -	- / -	- / -	- / 19.682	
<i>Subtotal: Support</i>	- / 29.471	- / 0.798	- / 1.271	- / 0.531	- / -	- / 0.531	- / 0.205	- / 0.154	- / 0.195	- / 0.116	- / -	- / 32.741	
Installation													
<i>Modification Item 1 of 1: (NR117) Global Broadcast Service (GBS)</i>	- / 43.817	- / 2.400	- / 5.223	- / 1.558	- / -	- / 1.558	- / 0.953	- / -	- / -	- / -	- / -	- / 53.951	
<i>Subtotal: Installation</i>	- / 43.817	- / 2.400	- / 5.223	- / 1.558	- / -	- / 1.558	- / 0.953	- / -	- / -	- / -	- / -	- / 53.951	
Total													
Total Cost (Procurement + Support + Installation)	188.908	3.913	13.701	9.672	-	9.672	2.883	3.116	3.184	3.253	-	228.630	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems	Modification Number / Title: 1 / (NR117) Global Broadcast Service (GBS)

Modification Item 1 of 1: (NR117) Global Broadcast Service (GBS)

Manufacturer Information

Manufacturer Name: RAYTHEON				Manufacturer Location: Sterling, VA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 5			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Apr 2015	Dec 2015	Dec 2016				
Delivery Dates	Sep 2015	May 2016	May 2017				
Manufacturer Name: Windmill International - Portable Recieve Terminals				Manufacturer Location: Nashua, NH			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 3			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Mar 2015	Mar 2016	Mar 2017				

Installation Information

Method of Implementation: [none specified]:: Installation Name: Afloat Receive Terminal

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	146 / 43.817	1 / 0.150	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	147 / 43.967
FY 2015	- / -	- / -	1 / 0.153	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.153
FY 2016	- / -	- / -	7 / 1.070	4 / 0.623	- / -	4 / 0.623	- / -	- / -	- / -	- / -	- / -	11 / 1.693
FY 2017	- / -	- / -	- / -	6 / 0.935	- / -	6 / 0.935	5 / 0.794	- / -	- / -	- / -	- / -	11 / 1.729
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.159	- / -	- / -	- / -	- / -	1 / 0.159
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	146 / 43.817	1 / 0.150	8 / 1.223	10 / 1.558	- / -	10 / 1.558	6 / 0.953	- / -	- / -	- / -	- / -	171 / 47.701

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	146	-	-	-	1	-	1	-	4	3	2	2	3	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171
Out	146	-	-	-	1	-	1	-	4	3	2	2	3	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	171

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems	Modification Number / Title: 1 / (NR117) Global Broadcast Service (GBS)

Modification Item 1 of 1: (NR117) Global Broadcast Service (GBS)

Installation Information

Method of Implementation: [none specified]:: Installation Name: Interim Modem Upgrades

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	45 / 2.250	80 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	125 / 6.250
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	45 / 2.250	80 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	125 / 6.250

Installation Schedule

PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	-	-	45	24	28	23	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125
Out	-	-	-	-	45	24	28	23	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125

Method of Implementation (Organic): Portable Receive Terminal - Not Installed

Installation Quantity: 99

Footnotes:

(1) NR117/NR777 (GBS) - Due to the requirement for installation funding to be in place 90 days prior to the start of the avail, 1st quarter installations are funded with prior year funds. GBS Afloat Terminal procurement quantities were decreased in FY16 to fund the completion of the Interim Modems. The procurement and installation of Interim Modems represents the number of platforms. Modem quantity is dependent on platform configuration. GBS Afloat terminals require an additional month after delivery for required integration, assembly and testing prior to installation start

(2) NR117: GBS Portable Receive Terminals are turn-key and therefore do not have installation costs associated with them.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3215 / Satellite Communications Systems				Modification Number / Title: 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	130.336	2.982	12.100	4.742	-	4.742	4.277	7.426	7.591	7.752	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	130.336	2.982	12.100	4.742	-	4.742	4.277	7.426	7.591	7.752	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	130.336	2.982	12.100	4.742	-	4.742	4.277	7.426	7.591	7.752	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Commercial Broadband Satellite Program (CBSP) - Afloat - Provides commercial wideband SATCOM terminals supporting capabilities such as Automated Digital Multiplexing System (ADMS), telemedicine, official and unofficial phones, public affairs officer information, imagery, and Meteorology and Oceanography Command (METOC) communications.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3215 / Satellite Communications Systems						Modification Number / Title: 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat			
Models of Systems Affected: Submarines, ships				Modification Type: upgrade				Related RDT&E PEs:					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: (NR112) Commercial Broadband Satellite program (CBSP) - Afloat</i>													
B Kits													
Recurring													
1.1.1) Small Ship Variant (SSV) - NonOrganic	27 / 4.290	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 4.290	
1.1.2) Unit Level Variant (ULV) - NonOrganic	31 / 30.476	- / -	- / -	- / -	- / -	- / -	- / -	5 / 4.682	3 / 2.898	4 / 3.986	Continuing	Continuing	
1.1.3) Force Level Variant (FLV) - NonOrganic ⁽³⁾	18 / 29.643	- / -	4 / 6.909	2 / 3.036	- / -	2 / 3.036	1 / 2.776	- / -	- / -	- / -	- / -	25 / 42.364	
<i>Subtotal: Recurring</i>	<i>- / 64.409</i>	<i>- / -</i>	<i>- / 6.909</i>	<i>- / 3.036</i>	<i>- / -</i>	<i>- / 3.036</i>	<i>- / 2.776</i>	<i>- / 4.682</i>	<i>- / 2.898</i>	<i>- / 3.986</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: (NR112) Commercial Broadband Satellite program (CBSP) - Afloat</i>	<i>76 / 64.409</i>	<i>- / -</i>	<i>4 / 6.909</i>	<i>2 / 3.036</i>	<i>- / -</i>	<i>2 / 3.036</i>	<i>1 / 2.776</i>	<i>5 / 4.682</i>	<i>3 / 2.898</i>	<i>4 / 3.986</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 64.409</i>	<i>- / -</i>	<i>- / 6.909</i>	<i>- / 3.036</i>	<i>- / -</i>	<i>- / 3.036</i>	<i>- / 2.776</i>	<i>- / 4.682</i>	<i>- / 2.898</i>	<i>- / 3.986</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
2.1) Training Equipment	- / 0.304	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.304	
2.2) Engineering Change Orders	- / 0.648	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.648	
2.3) Production Support	- / 9.541	- / -	- / 0.346	- / 0.094	- / -	- / 0.094	- / 0.139	- / 0.234	- / 0.159	- / 0.239	Continuing	Continuing	
2.4) Other (DSA)	- / 9.905	- / 0.982	- / 0.725	- / 0.072	- / -	- / 0.072	- / 0.592	- / 0.575	- / 0.734	- / 0.587	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 20.398</i>	<i>- / 0.982</i>	<i>- / 1.071</i>	<i>- / 0.166</i>	<i>- / -</i>	<i>- / 0.166</i>	<i>- / 0.731</i>	<i>- / 0.809</i>	<i>- / 0.893</i>	<i>- / 0.826</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: (NR112) Commercial Broadband Satellite program (CBSP) - Afloat</i>	<i>- / 45.529</i>	<i>- / 2.000</i>	<i>- / 4.120</i>	<i>- / 1.540</i>	<i>- / -</i>	<i>- / 1.540</i>	<i>- / 0.770</i>	<i>- / 1.935</i>	<i>- / 3.800</i>	<i>- / 2.940</i>	Continuing	Continuing	
<i>Subtotal: Installation</i>	<i>- / 45.529</i>	<i>- / 2.000</i>	<i>- / 4.120</i>	<i>- / 1.540</i>	<i>- / -</i>	<i>- / 1.540</i>	<i>- / 0.770</i>	<i>- / 1.935</i>	<i>- / 3.800</i>	<i>- / 2.940</i>	<i>Continuing</i>	<i>Continuing</i>	
Total													
Total Cost (Procurement + Support + Installation)	130.336	2.982	12.100	4.742	-	4.742	4.277	7.426	7.591	7.752	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems	Modification Number / Title: 2 / (NR112) Commercial Broadband Satellite program (CBSP) - Afloat

Modification Item 1 of 1: (NR112) Commercial Broadband Satellite program (CBSP) - Afloat

Manufacturer Information

Manufacturer Name: Harris - CBSP FLV	Manufacturer Location: Palm Beach, FL
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 6

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Feb 2016	Feb 2017				
Delivery Dates		Aug 2016	Aug 2017				

Installation Information

Method of Implementation: Tiger Team:: Installation Name: Small Ship Variant (SSV), Unit Level Variant (ULV) and Force Level V

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	72 / 45.529	2 / 2.000	2 / 1.685	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	76 / 49.214
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	3 / 2.435	1 / 0.770	- / -	1 / 0.770	- / -	- / -	- / -	- / -	- / -	4 / 3.205
FY 2017	- / -	- / -	- / -	1 / 0.770	- / -	1 / 0.770	1 / 0.770	- / -	- / -	- / -	- / -	2 / 1.540
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.985	- / -	- / -	- / -	1 / 0.985
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.950	4 / 3.800	- / -	- / -	5 / 4.750
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 2.940	- / -	3 / 2.940
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	72 / 45.529	2 / 2.000	5 / 4.120	2 / 1.540	- / -	2 / 1.540	1 / 0.770	2 / 1.935	4 / 3.800	3 / 2.940	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	72	-	-	1	1	-	-	2	-	3	-	1	-	1	1	-	-	-	1	-	-	1	4	-	-	-	3	-	-	Cont.	Cont.
Out	72	-	-	-	1	1	-	-	2	-	3	-	1	-	1	1	-	-	-	-	1	-	1	4	-	-	-	3	-	Cont.	Cont.

Footnotes:

⁽³⁾ FLV terminals include a single and a dual antenna configuration which influences average unit cost.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems	Modification Number / Title: 3 / (NR118) JMINI CS Shore
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	5.938	6.548	4.491	-	-	-	-	-	-	-	-	16.977
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	5.938	6.548	4.491	-	-	-	-	-	-	-	-	16.977
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	5.938	6.548	4.491	-	-	-	-	-	-	-	-	16.977

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Joint Ultra-High Frequency (UHF) Military Satellite Communication (MILSATCOM) Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5 and 25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assigned Single Access (DASA) channels to maximize existing highly sought after SATCOM resources used to support operational strike missions as well as joint training and tactical exercises. The system provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders and SATCOM Support Centers. The JMINI CS is required to operate beyond the original End of Life (EoL) in 2015 in order to continue to support mission critical operations through at least 2033. The globally integrated system consists of three major subsystems: Network Management System, Satellite Access Controller and the control terminals. The JMINI CS system refresh effort will replace obsolete and unsupported components or subsystems while maintaining interoperability with existing systems. Design and integration efforts were funded with RD TEN.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3215 / Satellite Communications Systems						Modification Number / Title: 3 / (NR118) JMINI CS Shore			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs:					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> (NR118) JMINI CS Shore													
B Kits													
Recurring													
1.1.1) JMINI Control System Shore - NonOrganic ⁽⁴⁾	1 / 5.690	4 / 6.066	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 11.756	
<i>Subtotal: Recurring</i>	- / 5.690	- / 6.066	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.756	
<i>Subtotal: (NR118) JMINI CS Shore</i>	1 / 5.690	4 / 6.066	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 11.756	
<i>Subtotal: Procurement, All Modification Items</i>	- / 5.690	- / 6.066	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.756	
Support (All Modification Items)													
2.1) Production Support	- / 0.248	- / 0.418	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.666	
<i>Subtotal: Support</i>	- / 0.248	- / 0.418	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.666	
Installation													
<i>Modification Item 1 of 1:</i> (NR118) JMINI CS Shore	- / 0.000	- / 0.064	- / 4.491	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.555	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.064	- / 4.491	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.555	
Total													
Total Cost (Procurement + Support + Installation)	5.938	6.548	4.491	-	-	-	-	-	-	-	-	16.977	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3215 / Satellite Communications Systems	Modification Number / Title: 3 / (NR118) JMINI CS Shore

Modification Item 1 of 1: (NR118) JMINI CS Shore

Manufacturer Information

Manufacturer Name: VIASAT ⁽⁵⁾	Manufacturer Location: Carlsbad, CA.
Administrative Leadtime (in Months): 3	Production Leadtime (in Months): 1

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015						
Delivery Dates	Feb 2015						

Installation Information

Method of Implementation: Method:: Installation Name: JMINI CS

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	- / -	1 / 0.064	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.064
FY 2015	- / -	- / -	4 / 4.491	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 4.491
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 0.064	4 / 4.491	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 4.555

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	-	-	1	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5		
Out	-	-	-	-	1	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5			

Footnotes:

⁽⁴⁾ (a) JMINI quantity reflects the number of regions. (b) The FY16 installation cost is significantly higher due to the complexity of installing a modernized system that is not backwards compatible with the legacy JMINI system, creating additional operational cutover requirements and increasing the duration and overall cost of the effort.

⁽⁵⁾ Procurement in FY15 allows for a 15 month Integration, Assembly, and Test activities to occur prior to installation in FY16. Due to the operational relevance of the system, rigorous acceptance test activities must occur prior to fully fielding the system.

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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 02: Communications & Electronics Equip / BSA 13: Satellite Communications	P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: 290	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	620.861	233.162	118.113	38.365	-	38.365	68.054	95.021	71.425	11.102	103.000	1,359.103
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	620.861	233.162	118.113	38.365	-	38.365	68.054	95.021	71.425	11.102	103.000	1,359.103
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	620.861	233.162	118.113	38.365	-	38.365	68.054	95.021	71.425	11.102	103.000	1,359.103

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	2.277	0.143	0.040	-	0.040	0.114	0.258	0.081	0.094	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The FY 2017 funding request was reduced by \$0.8 million to account for the availability of prior year execution balances.

Decrease in NMT by \$1.61M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Navy Multiband Terminal (NMT) System provides funds for procurement of ship, submarine, and shore protected and wideband Military Satellite Communications (MILSATCOM) terminals via earth orbiting relay satellites in the Super High Frequency, Ka, and Extremely High Frequency (EHF) bands. The NMT provides warfighters with the assured, jam resistant, secure SATCOM for message traffic, data transfer and secure voice communications. These procurements are scheduled to meet the satellite communications requirements established by the Chief of Naval Operations in the Fleet Communications Planning and Programming documents.

NAVY MULTIBAND TERMINAL (NMT - NS108): The NMT program is the next generation maritime military satellite communications terminal. The NMT Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. NMT multiband communication capabilities will communicate two way Ka-Band on Wideband Global SATCOM (WGS) and shipboard and submarine terminals to communicate with X-Band using the Defense Satellite Communications System and WGS. NMT is compatible with today's Navy Low Data Rate/Medium Data Rate terminals, X-Band terminals and will sustain the MILSATCOM architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on the capabilities of both the Military Strategic and Tactical Relay System (MILSTAR) and WGS system by equipping the warfighters with the assured, jam resistant, secure communications as described in the Operational Requirements Document (Wideband Gapfiller System ORD, AFSPC ORD 004-99, May 3, 2000) for the joint AEHF Satellite Communications and WGS System.

The NMT protected system AN/WSC-9 V (Variant) is comprised of three configurations for ships, submarines and shore sites known as Communication Groups. Terminal Communication Groups will integrate protected and wideband signal processing to multiband Antenna Groups. The Antenna Groups align to the specific Terminal Variant for ship, submarine and shore platforms and provides the SATCOM capabilities known as Q/Ka and X/Ka assigned to platforms. NMT includes the Advanced Time Division Multiple Access (TDMA) Interface Processor (IP) and supports increased data transfers for the Automated Digital Network System (ADNS) router architecture supporting improved Quality of Service (QoS) capability, smaller form factor and easier integration into operational environments, further supporting network user access to protected MILSATCOM connectivity.

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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 02: Communications & Electronics Equip / BSA 13: Satellite Communications

P-1 Line Item Number / Title:
3216 / Navy Multiband Terminal (NMT)

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: 290 **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / 3216 Navy Multiband Terminal (NMT) - Afloat (TBD)			- / 570.834	- / 185.843	- / 110.959	- / 29.537	- / -	- / 29.537
P-3a	2 / 3216 Navy Multiband Terminal (NMT) - Ashore (TBD)			- / 50.027	- / 47.319	- / 7.154	- / 8.828	- / -	- / 8.828
P-40	Total Gross/Weapon System Cost			- / 620.861	- / 233.162	- / 118.113	- / 38.365	- / -	- / 38.365

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-3a	1 / 3216 Navy Multiband Terminal (NMT) - Afloat (TBD)			- / 50.201	- / 87.273	- / 57.691	- / 6.662	- / 98.772	- / 1,197.772
P-3a	2 / 3216 Navy Multiband Terminal (NMT) - Ashore (TBD)			- / 17.853	- / 7.748	- / 13.734	- / 4.440	- / 4.228	- / 161.331
P-40	Total Gross/Weapon System Cost			- / 68.054	- / 95.021	- / 71.425	- / 11.102	- / 103.000	- / 1,359.103

*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:
FY17 continues the procurement of full capability terminals and Advanced EHF Time Division Multiple Access Interface Processor (ATIP) on ship terminals procured in prior years and completes fielding of X/Ka backfits. Wideband Anti-Jam Modem Systems FY18-FY21 funds were realigned to assist with completing NMT Terminal procurements and installations. Ashore installations commencing in FY17 will include new antennas vice refurbished antennas.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)				Modification Number / Title: 1 / 3216 Navy Multiband Terminal (NMT) - Afloat				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	570.834	185.843	110.959	29.537	-	29.537	50.201	87.273	57.691	6.662	98.772	1,197.772
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	570.834	185.843	110.959	29.537	-	29.537	50.201	87.273	57.691	6.662	98.772	1,197.772
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	570.834	185.843	110.959	29.537	-	29.537	50.201	87.273	57.691	6.662	98.772	1,197.772
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[Afloat Ship] Provides jam resistant, low probability of interception and detection for protected extended data rate communications with AEHF capability.

[Afloat Sub] Provides jam resistant, low probability of interception and detection for protected extended data rate communications with AEHF capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)						Modification Number / Title: 1 / 3216 Navy Multiband Terminal (NMT) - Afloat			
Models of Systems Affected: Shore stations, ships, submarines				Modification Type: TBD				Related RDT&E PEs: 0303109N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
Procurement													
<i>Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Afloat</i>													
B Kits													
Recurring													
1.1.1) Afloat Ship - NonOrganic ⁽¹⁾	99 / 316.505	12 / 58.922	8 / 41.559	- / -	- / -	- / -	1 / 8.213	10 / 51.991	3 / 18.628	- / -	- / 44.168	133 / 539.986	
1.1.2) Afloat Sub - NonOrganic	63 / 56.571	- / -	4 / 3.886	2 / 3.298	- / -	2 / 3.298	- / -	- / -	5 / 4.751	- / -	- / -	74 / 68.506	
1.1.3) Production Support - Ship - NonOrganic	- / 12.285	- / 3.673	- / 2.494	- / -	- / -	- / -	- / 0.493	- / 3.178	- / 1.226	- / -	- / 2.458	- / 25.807	
1.1.4) Production Support - Sub - NonOrganic	- / 3.426	- / 0.382	- / 0.233	- / 0.212	- / -	- / 0.212	- / -	- / -	- / 0.285	- / -	- / -	- / 4.538	
1.1.5) Other DSA - Ship - NonOrganic	- / 20.864	- / 7.889	- / 2.464	- / 2.318	- / -	- / 2.318	- / 3.541	- / 4.091	- / 1.421	- / 2.653	- / 0.860	- / 46.101	
1.1.6) Other DSA - Sub - NonOrganic	- / 6.170	- / 0.603	- / 0.283	- / 0.289	- / -	- / 0.289	- / 0.343	- / 0.200	- / -	- / -	- / 0.212	- / 8.100	
<i>Subtotal: Recurring</i>	<i>- / 415.821</i>	<i>- / 71.469</i>	<i>- / 50.919</i>	<i>- / 6.117</i>	<i>- / -</i>	<i>- / 6.117</i>	<i>- / 12.590</i>	<i>- / 59.460</i>	<i>- / 26.311</i>	<i>- / 2.653</i>	<i>- / 47.698</i>	<i>- / 693.038</i>	
<i>Subtotal: 3216 Navy Multiband Terminal (NMT) - Afloat</i>	<i>162 / 415.821</i>	<i>12 / 71.469</i>	<i>12 / 50.919</i>	<i>2 / 6.117</i>	<i>- / -</i>	<i>2 / 6.117</i>	<i>1 / 12.590</i>	<i>10 / 59.460</i>	<i>8 / 26.311</i>	<i>- / 2.653</i>	<i>- / 47.698</i>	<i>207 / 693.038</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 415.821</i>	<i>- / 71.469</i>	<i>- / 50.919</i>	<i>- / 6.117</i>	<i>- / -</i>	<i>- / 6.117</i>	<i>- / 12.590</i>	<i>- / 59.460</i>	<i>- / 26.311</i>	<i>- / 2.653</i>	<i>- / 47.698</i>	<i>- / 693.038</i>	
Installation													
<i>Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Afloat</i>	<i>- / 155.013</i>	<i>- / 114.374</i>	<i>- / 60.040</i>	<i>- / 23.420</i>	<i>- / -</i>	<i>- / 23.420</i>	<i>- / 37.611</i>	<i>- / 27.813</i>	<i>- / 31.380</i>	<i>- / 4.009</i>	<i>- / 51.074</i>	<i>- / 504.734</i>	
<i>Subtotal: Installation</i>	<i>- / 155.013</i>	<i>- / 114.374</i>	<i>- / 60.040</i>	<i>- / 23.420</i>	<i>- / -</i>	<i>- / 23.420</i>	<i>- / 37.611</i>	<i>- / 27.813</i>	<i>- / 31.380</i>	<i>- / 4.009</i>	<i>- / 51.074</i>	<i>- / 504.734</i>	
Total													
Total Cost (Procurement + Support + Installation)	570.834	185.843	110.959	29.537	-	29.537	50.201	87.273	57.691	6.662	98.772	1,197.772	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)	Modification Number / Title: 1 / 3216 Navy Multiband Terminal (NMT) - Afloat

Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Afloat

Installation Information

Method of Implementation: Method:: Installation Name: Navy Multiband Terminal (NMT) - Afloat

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	103	3	5	12	10	-	1	1	7	6	6	1	7	-	6	3	5	-	7	1	2	-	2	1	6	-	-	1	-	11	207
Out	104	-	3	5	12	10	-	1	-	14	6	6	1	-	-	6	3	5	-	7	1	2	-	2	1	6	-	-	1	11	207

Footnotes:

(1) 1. FY17-21 procurement continues terminal buys and the Advanced EHF Time Division Multiple Access Interface Processor (ATIP). FYDP Procurement and installation costs reflect latest Service Cost Position and new follow-on contract pricing. The new contract awarded Q1/FY16. The FY16 to FY17 Submarine Procurement Average Unit Cost (PAUC) increase is a result of fewer quantities and reduced Economic Order Quantity (EOQ) savings against the new contract. 2. FY17 QTY 2 Sub terminals support warfighting mission areas including CNO's #1 priority, Sea-Based Strategic Defense/Nuclear Command Control and Communications (NC3), Strike, & C2. Required to support critical Cyber security and crypto modernization requirements. 3. FY17 install costs include the cost to install backfits required for basic NMT units already installed. 4. FY18-FY21 re-phased funds from Wide Band Anti-Jam Modem to NMT Terminals. 5. FY17-FY21 NMT scheduled installs depend on limited ship availabilities as the program nears FOC. 6. The Procurement Lead Time is 15 months to deliver the first unit. Deliveries occur each month (a minimum of 1 per month and up to a maximum of 6 per month) until the order is filled and will not exceed a 12 month period for any order. Prior year equipment (QTY 5) installed in FY18 is due to Fleet directed fielding schedule adjustments. 7. NMT procurement and install costs will vary each year due to a different mix of platform variants and quantity of components procured each year as well as additional costs for X/Ka backfits and ATIP capability. Procurement unit cost is also determined by contract quantity pricing at the total order level (ship/sub/shore). Large deck ships consist of 2 Terminal Communication Groups with 4, 5, or 6 antennas. The antenna mix ties to specific configuration requirement for each ship. Small deck ships consist of 1 Terminal Communication Group with 2, 3, or 4 antennas. There are 13 NMT variants and antenna size varies by class (ranging from 54" to 96"). 7. Per Fleet Modernization Program (FMP) first quarter installations reflected in the Installation Schedule are funded in the prior year in order to fund the installation contracts 90 days prior to the beginning of shipboard installation work. 90 days are needed to allow sufficient time for the contractor to plan the work schedule, order material, and perform necessary fabrication. 8. Install cost fluctuations attribute and dependent on class, configuration of both the platform and the NMT system installed (single CG, dual CGs, Q/Ka, Q/X/Ka, 2-6 antenna configuration, shore, or sub). For example, estimated installation cost for a LHD 1 class (large deck) platform with dual Q/X/Ka capability is approximately four times greater than a DDG 51 class platform (small deck) with the same Q/X/Ka capability. Fielded platforms with the Q/Ka configuration require an X/Ka backfit, which has additional costs dependent on platform (large vs small deck).

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13				P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)				Modification Number / Title: 2 / 3216 Navy Multiband Terminal (NMT) - Ashore				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	50.027	47.319	7.154	8.828	-	8.828	17.853	7.748	13.734	4.440	4.228	161.331
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	50.027	47.319	7.154	8.828	-	8.828	17.853	7.748	13.734	4.440	4.228	161.331
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	50.027	47.319	7.154	8.828	-	8.828	17.853	7.748	13.734	4.440	4.228	161.331
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[Ashore] Provides jam resistant, low probability of interception and detection for protected extended data rate communications with AEHF capability.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)	Modification Number / Title: 2 / 3216 Navy Multiband Terminal (NMT) - Ashore

Models of Systems Affected: Shore stations, ships, submarines		Modification Type: TBD			Related RDT&E PEs: 0303109N			
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Financial Plan	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)

Procurement

Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Ashore												
B Kits												
Recurring												
1.1.1) Ashore - NonOrganic ⁽²⁾	26 / 39.728	5 / 23.833	- / -	- / -	- / -	- / -	7 / 13.785	- / -	5 / 9.731	- / -	- / -	43 / 87.077
1.1.2) Production Support - Ashore - Organic	- / 1.584	- / 1.430	- / -	- / -	- / -	- / -	- / 0.827	- / -	- / 0.584	- / -	- / -	- / 1.425
1.1.3) Other DSA - Ashore - Organic	- / 0.668	- / 2.005	- / 0.650	- / 0.803	- / -	- / 0.803	- / 0.295	- / 0.704	- / 0.311	- / 0.404	- / 0.384	- / 1.6224
Subtotal: Recurring	- / 141.980	- / 27.268	- / 0.650	- / 0.803	- / -	- / 0.803	- / 14.907	- / 0.704	- / 10.626	- / 0.404	- / 0.384	- / 97.726
Subtotal: 3216 Navy Multiband Terminal (NMT) - Ashore	26 / 41.980	5 / 27.268	- / 0.650	- / 0.803	- / -	- / 0.803	7 / 14.907	- / 0.704	5 / 10.626	- / 0.404	- / 0.384	43 / 97.726
Subtotal: Procurement, All Modification Items	- / 141.980	- / 27.268	- / 0.650	- / 0.803	- / -	- / 0.803	- / 14.907	- / 0.704	- / 10.626	- / 0.404	- / 0.384	- / 97.726

Installation

Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Ashore												
	- / 8.047	- / 20.051	- / 6.504	- / 8.025	- / -	- / 8.025	- / 2.946	- / 7.044	- / 3.108	- / 4.036	- / 3.844	- / 63.605
Subtotal: Installation	- / 8.047	- / 20.051	- / 6.504	- / 8.025	- / -	- / 8.025	- / 2.946	- / 7.044	- / 3.108	- / 4.036	- / 3.844	- / 63.605

Total

Total Cost (Procurement + Support + Installation)	50.027	47.319	7.154	8.828	-	8.828	17.853	7.748	13.734	4.440	4.228	161.331
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)	Modification Number / Title: 2 / 3216 Navy Multiband Terminal (NMT) - Ashore

Modification Item 1 of 1: 3216 Navy Multiband Terminal (NMT) - Ashore

Manufacturer Information							
Manufacturer Name: Raytheon				Manufacturer Location: Marlborough, MA			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 15			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014						
Delivery Dates	Mar 2016						
Manufacturer Name: New MFG - TBD				Manufacturer Location: New MFG - TBD			
Administrative Leadtime (in Months): 3				Production Leadtime (in Months): 15			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Jan 2016	Jan 2017				
Delivery Dates		Apr 2017	Apr 2018				

Installation Information

Method of Implementation: Method:: Installation Name: Navy Multiband Terminal (NMT) - Ashore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	9 / 8.047	15 / 20.051	2 / 3.252	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	26 / 31.350
FY 2015	- / -	- / -	2 / 3.252	3 / 8.025	- / -	3 / 8.025	- / -	- / -	- / -	- / -	- / -	5 / 11.277
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.946	4 / 7.044	2 / 3.108	1 / 2.018	- / -	7 / 15.116
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 2.018	4 / 3.844	5 / 5.862
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	9 / 8.047	15 / 20.051	4 / 6.504	3 / 8.025	- / -	3 / 8.025	- / 2.946	4 / 7.044	2 / 3.108	2 / 4.036	4 / 3.844	43 / 63.605

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	9	-	3	2	-	-	-	3	7	4	-	2	1	-	-	-	-	-	-	2	2	-	-	2	-	-	-	2	-	4	43
Out	9	-	-	3	2	-	-	-	3	8	4	-	2	-	-	-	-	-	-	-	2	2	-	-	2	-	-	-	2	4	43

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 13	P-1 Line Item Number / Title: 3216 / Navy Multiband Terminal (NMT)	Modification Number / Title: 2 / 3216 Navy Multiband Terminal (NMT) - Ashore

Footnotes:
⁽²⁾ 1. FY17 and beyond procurements include the continuation of the Advanced EHF Time Division Multiple Access Interface Processor (ATIP). Procurement and installation costs throughout FYDP reflect latest Service Cost Position and new follow-on contract pricing. The follow-on contract awarded in Q1/FY16. 2. FY15 average unit procurement and installation cost increases (FY15/FY16) are attributed to a Shipboard terminal configuration for Shore Schoolhouse sites previously captured against Afloat. FY17-FY18 Ashore average unit installation cost increase includes Mod Kit Antenna upgrades. FY18-FY21 re-phased funding from Wide Band Anti-Jam Modem to NMT Terminals. FY18 install quantity represents a NMT Mod Kit Antenna upgrade therefore is not quantified as an end item. 3. The Procurement Lead Time is 15 months to deliver the first terminal. Deliveries will occur each month (a minimum of 1 per month and up to a maximum of 6 per month) until the order is filled and will not exceed a 12 month period for any specific order. 4. NMT procurement and installation unit costs will vary and fluctuate from year to year due to a different mix of platform variants and quantity of components procured and installed each year to include additional costs for ATIP capability. Ashore sites consist of 2 variants; Communications Group with 1 antenna or a Communications Group only. The antenna mix ties to the specific configuration requirement for Ashore sites (FY17-FY19). Additionally, procurement unit cost is also determined by contract quantity pricing at the total order level (ship/sub/shore).

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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 02: Communications & Electronics Equip / BSA 14: Shore Communications	P-1 Line Item Number / Title: 3302 / JCS Communications Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	11.021	4.369	4.591	4.156	-	4.156	4.243	4.339	4.435	4.522	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.021	4.369	4.591	4.156	-	4.156	4.243	4.339	4.435	4.522	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.021	4.369	4.591	4.156	-	4.156	4.243	4.339	4.435	4.522	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in JCS Communications Equipment by \$0.18M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Joint Communications Support Element (JCSE) Program is responsible for procuring hardware and software to support Defensive Cyber Operations, Transport technologies (narrowband, wideband and protected satellite communications), C4 Architecture (network elements that provide access to the Defense Information Systems Network (DISN) cloud), and C2 On-The-Move (land, air and ground based tactical capabilities) in concert with Strategic Planning Guidance. JCSE's Modernization Program is structured around Combatant Command (CCMD) requirements using emerging technologies. Services formally influence JCSE's acquisition plan through semi-annual program reviews, and make recommendations in concert with Major Defense Acquisition Program (MDAP) schedules, ensuring that Service dollars meet Joint Service requirements. The modernization program goals include meeting emerging real-world operational requirements with improved capabilities, smaller footprint, reduced operations and maintenance costs, and seamless integration with the global information grid.

This line funds the Department of the Navy's portion of the JCSE Program. This program is jointly funded by Army, Navy, Marine Corps and Air Force in support of Joint Tactical Force and Joint Special Operations Task Force Headquarters.

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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 02: Communications & Electronics Equip / BSA 14: Shore Communications	P-1 Line Item Number / Title: 3302 / JCS Communications Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	JCS Communications Equipment			- / 11.021	- / 4.369	- / 4.591	- / 4.156	- / -	- / 4.156
P-40	Total Gross/Weapon System Cost			- / 11.021	- / 4.369	- / 4.591	- / 4.156	- / -	- / 4.156

*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:
 FY17 funds the procurement of Communication requirements identified to support personnel and equipment to establish and maintain emergency communications detachments in support of Joint Task Force and Joint Special Operations Task Force Commanders.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14 **P-1 Line Item Number / Title:** 3302 / JCS Communications Equipment **Aggregated Items Title:** JCS Communications Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
1) Joint Communication Support Element Modernization																				
1.1) Joint Communication Support Element Modernization ⁽¹⁾	A		-	-	11.021	-	-	4.369	-	-	4.591	-	-	4.156	-	-	-	-	-	4.156
Subtotal: 1) Joint Communication Support Element Modernization			-	-	11.021	-	-	4.369	-	-	4.591	-	-	4.156	-	-	-	-	-	4.156
Total			-	-	11.021	-	-	4.369	-	-	4.591	-	-	4.156	-	-	-	-	-	4.156

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

Footnotes:

⁽¹⁾ Quantities are not shown. Quantities and equipment type are determined by the COCOM on an annual basis based on Joint Task Force and Joint Special Operations Task Force operational requirements for critical communications.

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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 02: Communications & Electronics Equip / BSA 14: Shore Communications	P-1 Line Item Number / Title: 3303 / Electrical Power Systems
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.778	1.402	1.403	-	-	-	-	-	-	-	-	3.583
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.778	1.402	1.403	-	-	-	-	-	-	-	-	3.583
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.778	1.402	1.403	-	-	-	-	-	-	-	-	3.583

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Procures, installs, and replaces generators and Uninterruptible Power Supply (UPS) systems to provide highly reliable, continuous, high quality power subsystems to support Navy Cyber Forces. Some of the operational load is designated as "critical" and requires UPS systems for instantaneous application in case of loss or disturbance of the primary power source.

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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 02: Communications & Electronics Equip / BSA 14: Shore Communications

P-1 Line Item Number / Title:
3303 / Electrical Power Systems

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

Line Item MDAP/MAIS Code: N/A **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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Electrical Power Systems	P-5a, P-21		- / 0.778	- / 1.402	- / 1.403	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 0.778	- / 1.402	- / 1.403	- / -	- / -	- / -

*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.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14 **P-1 Line Item Number / Title:** 3303 / Electrical Power Systems **Aggregated Items Title:** Electrical Power Systems

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
1) Electrical Power Systems (Fleet Forces Command)																				
1.1) Procure & Install Generators - NCTS Bahrain ^(†)	A		0.778	1	0.778	-	-	-	1.403	1	1.403	-	-	-	-	-	-	-	-	-
1.2) Procure & Install Generator Systems, Comm Facility Iceland ^(†)	A		-	-	-	1.402	1	1.402	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Electrical Power Systems (Fleet Forces Command)			-	-	0.778	-	-	1.402	-	-	1.403	-	-	-	-	-	-	-	-	-
Total			-	-	0.778	-	-	1.402	-	-	1.403	-	-	-	-	-	-	-	-	-

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

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14	P-1 Line Item Number / Title: 3303 / Electrical Power Systems	Aggregated Items: Electrical Power Systems
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) Electrical Power Systems (Fleet Forces Command)												
1.1) Procure & Install Generators - NCTS Bahrain		2014	URS Corporation / 600 Montgomery St, San Francisco, CA 94111	C / FP	SPAWAR Charleston, Charleston SC	Jan 2014	Apr 2014	1	0.778	N		
1.1) Procure & Install Generators - NCTS Bahrain		2016	Facilities Development Corporation / Reston, VA	C / FP	RESTON, VA	Jan 2016	Jan 2016	1	1.403	N		
1.2) Procure & Install Generator Systems, Comm Facility Iceland ^(†)		2015	Facilities Development Corporation / Reston, VA	C / FP	Facilities Development Corporation, Reston VA	Sep 2015	Sep 2015	1	1.402	Y		

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14 **P-1 Line Item Number / Title:** 3303 / Electrical Power Systems **Aggregated Items:** Electrical Power Systems

Items <i>(Units in Each)</i>						Fiscal Year 2014												Fiscal Year 2015												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							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) Electrical Power Systems (Fleet Forces Command)																															
1.2) Procure & Install Generator Systems, Comm Facility Iceland																															
12		2015	NAVY	1	-	1																							A1	-	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14	P-1 Line Item Number / Title: 3303 / Electrical Power Systems	Aggregated Items: Electrical Power Systems
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Items <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
1) Electrical Power Systems (Fleet Forces Command)																															
1.2) Procure & Install Generator Systems, Comm Facility Iceland																															
12		2015	NAVY	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 14	P-1 Line Item Number / Title: 3303 / Electrical Power Systems	Aggregated Items: Electrical Power Systems
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MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)								
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	
1	Facilities Development Corporation - Reston, VA	-	-	-	-	-	-	-	-	-	-	-	-

"A" in the Delivery Schedule indicates the Contract Award Date.

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

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303140N
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	1,354.517	101.110	135.687	85.694	-	85.694	91.581	99.749	102.197	105.659	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	1,354.517	101.110	135.687	85.694	-	85.694	91.581	99.749	102.197	105.659	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	1,354.517	101.110	135.687	85.694	-	85.694	91.581	99.749	102.197	105.659	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.641	1.520	0.163	-	0.163	0.292	0.307	0.398	0.346	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Information Systems Security Program (ISSP) ensures the protection of Navy and joint cyberspace systems from exploitation and attack. Systems include wired and wireless telecommunications systems, cybersecurity systems, and the content processed, stored, or transmitted therein. ISSP includes protection of the Navy's National Security Systems (NSS).

The rapid change in the underlying commercial and government cyber infrastructures makes cybersecurity an increasingly complex and dynamic problem. ISSP provides the Navy's warfighter the essential information trust characteristics of availability, confidentiality, integrity, authentication, and non-repudiation. Cybersecurity and remediation activities must evolve quickly to meet the rapidly evolving threats and vulnerabilities.

[P5 / Public Key Infrastructure (DA018)]: PKI implements a secure infrastructure for the generation, management, and delivery of digital certificates for secure electronic transactions, hardware certificate-based two-way authentication to networks, applications, and web servers; and secure email.

[P5 / Cybersecurity Virtual Secure Enclave (VSE) (DA070)]: Cybersecurity VSE is the follow-on limited transition of capabilities from the Office of the Secretary of Defense (OSD) / Pacific Command (PACOM) sponsored VSE Joint Capability Technology Demonstration (JCTD). The technology provides a virtual secure enclave within existing networks that create a two-way encrypted tunnel between locations. Client Nodes (CN) and deployable Fly Away Kits (FAK) expand user level access to the existing system architecture which is required for the execution of various operational plans. FY17-21 funding was realigned to BLI 3050 / Shore Tactical Assured Command and Control (STACC).

[P3A / Computer Network Defense (CND) Increment 2- Afloat (DA070)]: Computer Network Defense (CND) Afloat systems include: System and host-based protection tools such as Host Based Security System (HBSS), remediation tools including Assured Configuration Assessment Solution (ACAS), supporting hardware and software for Department of Defense (DoD) mandated tools, Information Assurance Tracking System (IATS), Operating System Environment (OSE), enhanced data correlation tools, switches, ancillary devices and other related security tools.

[P3A - 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)]: CND Ashore systems represents multiple CND architectures with an assortment of builds and variants that are specifically designed to each site in accordance with CND's rapid Information Technology (IT) fielding. Shore sites include Networks Operation Centers (NOCs), Outside the Continental United States (OCONUS) Navy Enterprise Network (ONE-Net) Information Assurance Suite (IAS), Broadcast Control Authorities (BCA), and Navy Cyber Defense Operations Command (NCDOC), and CND production labs. The Virtual Training Environment (VTE) initiative supports equipment upgrades at the Navy schoolhouses. Deployment of Cyber Remediation will achieve improved network defense and security wholeness, countering intruders and attacks aimed at disrupting tactical communications at the afloat gateways and shore commands. CND shore sites will provide modern network sensors improving the ability to detect unusual network patterns

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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 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment		P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303140N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>and prevent/deter malicious attacks. SHARKCAGE enables Cyber Protection Teams (CPT) the ability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Support Task Force Cyber Awakening (TFCA)/Cybersafe control points and protect IT-enabled systems. The Navy Nuclear Command, Control , and Communications (NC3-N) network which supports Emergency Action Messages (EAM) transmission to ashore and afloat adds CND capabilities at NCDOC, Broadcast Control Authority (BCA), Fixed Submarine Broadcast System (FSBS) in support of the national NC3 mission.</p> <p>[P3A - 3 / Navy Cryptography (Crypto) - Afloat (DA071)]: The Navy Crypto program is designated as Department of Navy's (DoN) Cryptographic Modernization Program Office (CMPO). CMPO procures, installs, and provides life-cycle support for National Security Agency (NSA) Type-1 end cryptographic units for United States Navy (USN) (to include Military Sealift Command (MSC) platforms), United States Marine Corps (USMC), and United States Coast Guard (USCG). Crypto Afloat equipment includes: Families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories for all Services.</p> <p>[P3A - 4 / Navy Cryptography (Crypto) - Ashore (DA071)]: Navy Crypto Ashore sites include: United States Navy (USN), United States Marine Corps (USMC), United States Coast Guard (USCG) facilities, production/integration sites, and training sites. Crypto Ashore equipment includes: Families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories for all Services.</p> <p>[P3A - 5 / Key Management (KM) - Afloat (DA005)]: KM is a collection of Key Management Infrastructure (KMI) Tier 2 security equipment and Tier 3 equipment Simple Key Loader (SKL). KMI is the next generation Tier 2 product to replace the legacy Local Management Device/Key Processor (LMD/KP) Electronic Key Management System (EKMS). KMI includes the Management Client (MGC), Advanced Key Processor (AKP) and High Assurance Internet Protocol Equipment (HA/PE) devices. KMI provides a net-centric, web based architecture for the ordering, management and distribution of all cryptographic key material to support Navy users. KMI Tech Refresh / Spiral 3 will be required to upgrade all KMI Spiral 2 systems in a 5 year cycle. SKL is the next generation Tier 3 Data Transfer Device (DTD) that stores, manages, transfers and loads cryptographic key material and Communications Security (COMSEC) data through automatic loading of End Cryptographic Units (ECU). KM Afloat procures, installs and provides life cycle support for United States Navy (USN) (to include MSC platforms) and United States Coast Guard (USCG). KM afloat systems include: SKL, KMI Spiral 2, and KMI Tech Refresh</p> <p>[P3A - 6 / Key Management (KM) - Ashore (DA005)]: KM Ashore sites include: United States Navy (USN), United States Marine Corps (USMC), United States Coast Guard (USCG) facilities, production integration sites, and training sites. KM Ashore systems include: SKL, KMI Spiral 1 & 2 and KMI Tech Refresh.</p>		

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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 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment

P-1 Line Item Number / Title:
3415 / Info Systems Security Program (ISSP)

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0303140N

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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Info Systems Security Program (ISSP)	P-5a		- / 54.582	- / 4.882	- / 2.798	- / 1.323	- / -	- / 1.323
P-3a	1 / Computer Network Defense (CND) Increment 2- Afloat (DA070) (TBD)			- / 24.535	- / 5.507	- / 9.464	- / 4.575	- / -	- / 4.575
P-3a	2 / Computer Network Defense (CND) Increment 2- Ashore (DA070) (TBD)			- / 70.841	- / 34.442	- / 30.022	- / 25.995	- / -	- / 25.995
P-3a	3 / Navy Cryptography (Crypto) - Afloat (DA071) (TBD)			- / 445.709	- / 25.359	- / 39.431	- / 35.424	- / -	- / 35.424
P-3a	4 / Navy Cryptography (Crypto) - Ashore (DA071) (TBD)			- / 622.071	- / 0.603	- / 29.779	- / 3.631	- / -	- / 3.631
P-3a	5 / Key Management (KM) - Afloat (DA005) (TBD)			- / 57.050	- / 10.546	- / 12.700	- / 9.009	- / -	- / 9.009
P-3a	6 / Key Management (KM) - Ashore (DA005) (TBD)			- / 79.729	- / 19.771	- / 11.493	- / 5.737	- / -	- / 5.737
P-40	Total Gross/Weapon System Cost			- / 1,354.517	- / 101.110	- / 135.687	- / 85.694	- / -	- / 85.694

Exhibits Schedule				FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Exhibit Type	Title*	Subexhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Info Systems Security Program (ISSP)	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / Computer Network Defense (CND) Increment 2- Afloat (DA070) (TBD)			- / 4.118	- / 2.834	- / 2.493	- / 1.810	Continuing	Continuing
P-3a	2 / Computer Network Defense (CND) Increment 2- Ashore (DA070) (TBD)			- / 31.745	- / 38.416	- / 38.920	- / 42.635	Continuing	Continuing
P-3a	3 / Navy Cryptography (Crypto) - Afloat (DA071) (TBD)			- / 33.367	- / 25.216	- / 12.306	- / 10.567	Continuing	Continuing
P-3a	4 / Navy Cryptography (Crypto) - Ashore (DA071) (TBD)			- / 10.936	- / 21.008	- / 35.758	- / 37.822	Continuing	Continuing
P-3a	5 / Key Management (KM) - Afloat (DA005) (TBD)			- / 4.950	- / 4.609	- / 6.311	- / 4.900	Continuing	Continuing
P-3a	6 / Key Management (KM) - Ashore (DA005) (TBD)			- / 5.095	- / 6.240	- / 4.954	- / 6.440	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / 91.581	- / 99.749	- / 102.197	- / 105.659	Continuing	Continuing

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

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

Justification:

The FY 2017 budget will procure the following:

Public Key Infrastructure (PKI) (DA018): Real-Time Automated Personal Identification System (RAPIDS) hardware/software, Navy Certificate Validation Infrastructure (NCVI) Secret Internet Protocol Router Network (SIPRNet) & Non-Classified Internet Protocol Router Network (NIPRNet) hardware/software, and Logon Token product end items.

Computer Network Defense (CND)(DA070): Equipment to secure Navy network information systems. Procurements on afloat platforms and ashore sites may include hardware and software such as host-based protection tools, Department of Defense (DoD) mandated cyber security tools, cyber remediation capabilities, servers, laptops, ancillary devices, etc. Equipment will also be procured for Navy's Nuclear Command, Control, and Communications (NC3-N) network supporting Emergency Action Messages (EAM) transmission to afloat and ashore platforms.

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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 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment		P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0303140N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Navy Cryptography (Crypto)(DA071): Cryptographic equipment which includes families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products, and associated ancillary devices. In addition, Crypto will procure VINSON/Advanced Narrowband Digital Voice Terminal Cryptographic Modernization (VACM), In-Line Network Encryptions (INE), KW-46, Cryptographic Universal Enclosures (CUE) and Advanced Cryptographic Capability (ACC).</p> <p>Key Management (KM) (DA005): Key Management Infrastructure (KMI) Spiral 1&2, KMI Technical Refresh, Simple Key Loaders (SKL), and associated ancillary equipment.</p> <p>FY 2017 decrease in Info Systems Security Program (ISSP) OPN by \$3.602M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.</p>		

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Item Number / Title [DODIC]: 1 / Info Systems Security Program (ISSP)

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	54.582	4.882	2.798	1.323	-	1.323
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	54.582	4.882	2.798	1.323	-	1.323
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	54.582	4.882	2.798	1.323	-	1.323

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - Public Key Infrastructure (DA018) Cost																		
Recurring Cost																		
1.1.1) PKI - Procurement ^(†) (1)	1.940	15,286	29.658	0.055	15,000	0.825	0.105	15,010	1.576	88.500	10	0.885	-	-	-	88.500	10	0.885
<i>Subtotal: Recurring Cost</i>	-	-	29.658	-	-	0.825	-	-	1.576	-	-	0.885	-	-	-	-	-	0.885
Subtotal: Hardware - Public Key Infrastructure (DA018) Cost	-	-	29.658	-	-	0.825	-	-	1.576	-	-	0.885	-	-	-	-	-	0.885

Hardware - Cybersecurity Virtual Secure Enclave (VSE) (DA070) Cost																		
Recurring Cost																		
2.1.1) Cyber VSE - Procurement (PY)	173.706	17	2.953	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1.2) Fly-Away-Kits (FAK)- Procurement Only	256.455	11	2.821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.1.3) Fly-Away-Kits (FAK) Hard Drive-Procurement Only ^(†) (2)	-	-	0.000	76.000	3	0.228	77.000	3	0.231	-	-	-	-	-	-	-	-	-
2.1.4) Client Node (CN) - Procurement ^(†)	293.000	4	1.172	262.000	1	0.262	288.000	1	0.288	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	6.946	-	-	0.490	-	-	0.519	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Cybersecurity Virtual Secure Enclave (VSE) (DA070) Cost	-	-	6.946	-	-	0.490	-	-	0.519	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15						P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)						Item Number / Title [DODIC]: 1 / Info Systems Security Program (ISSP)					
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:							

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - PKI INSTALLATIONS Cost																		
Recurring Cost																		
3.1.1) PKI - Installations	-	-	8.012	-	-	1.100	-	-	0.480	-	-	0.300	-	-	-	-	-	0.300
<i>Subtotal: Recurring Cost</i>	-	-	<i>8.012</i>	-	-	<i>1.100</i>	-	-	<i>0.480</i>	-	-	<i>0.300</i>	-	-	-	-	-	<i>0.300</i>
Subtotal: Hardware - PKI INSTALLATIONS Cost	-	-	8.012	-	-	1.100	-	-	0.480	-	-	0.300	-	-	-	-	-	0.300
Hardware - Cyber VSE INSTALLATIONS Cost																		
Recurring Cost																		
4.1.1) Client Node (CN) - Installations	-	-	0.306	-	-	0.064	-	-	0.064	-	-	-	-	-	-	-	-	-
4.1.2) Cyber VSE - Installations (PY)	-	-	1.278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1.584</i>	-	-	<i>0.064</i>	-	-	<i>0.064</i>	-	-	-	-	-	-	-	-	-
Subtotal: Hardware - Cyber VSE INSTALLATIONS Cost	-	-	1.584	-	-	0.064	-	-	0.064	-	-	-	-	-	-	-	-	-
Support - Public Key Infrastructure (PKI) Cost																		
5.1) PKI - Production Support	-	-	5.765	-	-	0.020	-	-	0.040	-	-	0.023	-	-	-	-	-	0.023
5.2) PKI - DSA	-	-	2.407	-	-	2.361	-	-	0.097	-	-	0.115	-	-	-	-	-	0.115
<i>Subtotal: Support - Public Key Infrastructure (PKI) Cost</i>	-	-	<i>8.172</i>	-	-	<i>2.381</i>	-	-	<i>0.137</i>	-	-	<i>0.138</i>	-	-	-	-	-	<i>0.138</i>
Support - Cyber VSE Cost																		
6.1) Cyber VSE - Production Support	-	-	0.210	-	-	0.022	-	-	0.022	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Cyber VSE Cost</i>	-	-	<i>0.210</i>	-	-	<i>0.022</i>	-	-	<i>0.022</i>	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	54.582	-	-	4.882	-	-	2.798	-	-	1.323	-	-	-	-	-	1.323

(t) indicates the presence of a P-5a

Footnotes:

(1) Public Key Infrastructure (PKI) unit costs will vary by product type based on Navy Certificate Validation Infrastructure (NCVI) Secret Internet Protocol Router Network (SIPRNet) & Non-Classified Internet Protocol Router Network (NIPRNet) afloat and shore site requirements, Real-Time Automated Personal Identification System (RAPIDS) hardware/software requirements for future ship classes. Logon Tokens are procure only and have no installation costs for Navy. Fluctuation in quantity is due to the completion of initial procurement of Logon Tokens, which will transition from initial procurement to replenishment of units.

(2) Cyber Security Virtual Secure Enclave (VSE) FY17-21 funding was realigned to LI 3050 / Shore Tactical Assured Command and Control (STACC) to maximize alignment with future shore architecture.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Item Number / Title [DODIC]: 1 / Info Systems Security Program (ISSP)
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ K)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) PKI - Procurement		2015	SPAWAR Systems Center Atlantic ⁽³⁾ / Charleston, SC	WR	Charleston, SC	Feb 2015	Mar 2015	15,000	0.055	Y		
1.1.1) PKI - Procurement		2016	SPAWAR Systems Center Atlantic ⁽³⁾ / Charleston, SC	WR	Charleston, SC	Feb 2016	Mar 2016	15,010	0.105	Y		
1.1.1) PKI - Procurement		2017	SPAWAR Systems Center Atlantic ⁽³⁾ / Charleston, SC	WR	Charleston, SC	Feb 2017	Mar 2017	10	88.500	Y		
2.1.3) Fly-Away-Kits (FAK) Hard Drive- Procurement Only		2015	Georgia Tech Research Institute / Atlanta, GA	C / CPFF	Atlanta, GA	Mar 2015	Apr 2015	3	76.000	Y		
2.1.3) Fly-Away-Kits (FAK) Hard Drive- Procurement Only		2016	Georgia Tech Research Institute / Atlanta, GA	C / CPFF	Atlanta, GA	Mar 2016	Apr 2016	3	77.000	Y		
2.1.4) Client Node (CN) - Procurement		2015	Georgia Tech Research Institute / Atlanta, GA	C / CPFF	Atlanta, GA	Mar 2015	Apr 2015	1	262.000	Y		
2.1.4) Client Node (CN) - Procurement		2016	Georgia Tech Research Institute / Atlanta, GA	C / CPFF	Atlanta, GA	Mar 2016	Apr 2016	1	288.000	Y		

Footnotes:

⁽³⁾ PKI - SSC Atlantic provides ALT, SIPR tokens, and ashore NCVI SIPR/NIPR products.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15				P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 1 / Computer Network Defense (CND) Increment 2- Afloat (DA070)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	24.535	5.507	9.464	4.575	-	4.575	4.118	2.834	2.493	1.810	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	24.535	5.507	9.464	4.575	-	4.575	4.118	2.834	2.493	1.810	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	24.535	5.507	9.464	4.575	-	4.575	4.118	2.834	2.493	1.810	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Computer Network Defense (CND) Afloat systems include: System and host-based protection tools such as Host Based Security System (HBSS), remediation tools including Assured Configuration Assessment Solution (ACAS), supporting hardware and software for Department of Defense (DoD) mandated tools, Information Assurance Tracking System (IATS), Operating System Environment (OSE), enhanced data correlation tools, switches, ancillary devices and other related security tools.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 1 / Computer Network Defense (CND) Increment 2- Afloat (DA070)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1:</i> Computer Network Defense (CND) Increment 2- Afloat (DA070)													
B Kits													
Recurring													
1.1.1) Operating System Environment (OSE) SW - NonOrganic ⁽⁴⁾	134 / 3.883	33 / 1.035	57 / 1.841	40 / 1.356	- / -	40 / 1.356	34 / 1.206	22 / 0.804	19 / 0.722	16 / 0.632	Continuing	Continuing	
1.1.2) Operating System Environment (OSE) HW & SW - NonOrganic	18 / 1.074	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	18 / 1.074	
1.1.3) Information Assurance Tracking System (IATS) - NonOrganic	26 / 3.039	3 / 0.362	1 / 0.121	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	30 / 3.522	
1.1.4) Laptop - NonOrganic	15 / 0.529	9 / 0.375	25 / 1.073	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	49 / 1.977	
<i>Subtotal: Recurring</i>	- / 8.525	- / 1.772	- / 3.035	- / 1.356	- / -	- / 1.356	- / 1.206	- / 0.804	- / 0.722	- / 0.632	Continuing	Continuing	
<i>Subtotal: Computer Network Defense (CND) Increment 2- Afloat (DA070)</i>	193 / 8.525	45 / 1.772	83 / 3.035	40 / 1.356	- / -	40 / 1.356	34 / 1.206	22 / 0.804	19 / 0.722	16 / 0.632	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 8.525	- / 1.772	- / 3.035	- / 1.356	- / -	- / 1.356	- / 1.206	- / 0.804	- / 0.722	- / 0.632	Continuing	Continuing	
Support (All Modification Items)													
2.1) Train-the-Trainer ⁽⁵⁾	- / 2.232	- / 0.726	- / 0.689	- / 0.655	- / -	- / 0.655	- / 0.524	- / 0.419	- / 0.335	- / -	Continuing	Continuing	
2.2) Production Support	- / 0.382	- / 0.087	- / 0.130	- / 0.070	- / -	- / 0.070	- / 0.061	- / 0.043	- / 0.037	- / 0.022	Continuing	Continuing	
2.3) DSA	- / 0.745	- / 0.237	- / 0.253	- / 0.050	- / -	- / 0.050	- / 0.050	- / 0.050	- / 0.050	- / 0.050	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 3.359	- / 1.050	- / 1.072	- / 0.775	- / -	- / 0.775	- / 0.635	- / 0.512	- / 0.422	- / 0.072	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> Computer Network Defense (CND) Increment 2- Afloat (DA070)	- / 12.651	- / 2.685	- / 5.357	- / 2.444	- / -	- / 2.444	- / 2.277	- / 1.518	- / 1.349	- / 1.106	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 12.651	- / 2.685	- / 5.357	- / 2.444	- / -	- / 2.444	- / 2.277	- / 1.518	- / 1.349	- / 1.106	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	24.535	5.507	9.464	4.575	-	4.575	4.118	2.834	2.493	1.810	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 1 / Computer Network Defense (CND) Increment 2- Afloat (DA070)

Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Afloat (DA070)

Manufacturer Information

Manufacturer Name: SSC Atlantic	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 1

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Jan 2015	Jan 2016	Jan 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Computer Network Defense (CND) Increment 2- Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	193 / 12.651	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	193 / 12.651
FY 2015	- / -	45 / 2.685	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	45 / 2.685
FY 2016	- / -	- / -	83 / 5.357	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	83 / 5.357
FY 2017	- / -	- / -	- / -	40 / 2.444	- / -	40 / 2.444	- / -	- / -	- / -	- / -	- / -	40 / 2.444
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	34 / 2.277	- / -	- / -	- / -	- / -	34 / 2.277
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 1.518	- / -	- / -	- / -	22 / 1.518
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	19 / 1.349	- / -	- / -	19 / 1.349
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 1.106	- / -	16 / 1.106
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	193 / 12.651	45 / 2.685	83 / 5.357	40 / 2.444	- / -	40 / 2.444	34 / 2.277	22 / 1.518	19 / 1.349	16 / 1.106	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	192	1	5	4	22	14	33	17	15	18	21	10	7	2	13	8	10	3	10	6	2	4	7	7	4	1	7	5	4	Cont.	Cont.
Out	192	1	2	6	22	15	33	17	14	19	20	8	10	2	12	8	11	3	8	8	2	4	7	7	4	1	6	6	4	Cont.	Cont.

Footnotes:

(4) Operating System Environment (OSE) Software (SW) - CND centrally managed Afloat procurement/installation quantities represents one system per ship platform. The OSE-SW variant loads software onto hardware. The mix of variants being fielded varies each year. Due to CND's rapid Information Technology (IT) fielding approach, CND afloat procurements vary year to year in order to deliver capabilities. First quarter installations reflected in the installation schedule are funded in the prior year in order to be able to fund the installation contracts 90 day prior to the beginning of shipboard installation work.

(5) Train-the-Trainer - CND is designated Training Support Agent (TSA) and is required to transition initial training (train the trainer) to an approved solution at the schoolhouses.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15				P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	70.841	34.442	30.022	25.995	-	25.995	31.745	38.416	38.920	42.635	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	70.841	34.442	30.022	25.995	-	25.995	31.745	38.416	38.920	42.635	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	70.841	34.442	30.022	25.995	-	25.995	31.745	38.416	38.920	42.635	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

CND Ashore systems represents multiple CND architectures with an assortment of builds and variants that are specifically designed to each site in accordance with CND's rapid Information Technology (IT) fielding. Shore sites include Networks Operation Centers (NOCs), Outside the Continental United States (OCONUS) Navy Enterprise Network (ONE-Net) Information Assurance Suite (IAS), Broadcast Control Authorities (BCA), and Navy Cyber Defense Operations Command (NCDOC), and CND production labs. The ONE-Net security initiative consolidates Local Network Service Centers (LNSC) to their parent Theater Network Operations & Security Center (TNOSCs) for more efficient operation and enables greater failover capability between ONE-Net sites. The Virtual Training Environment (VTE) initiative supports equipment upgrades at the Navy schoolhouses. The Pre-Planned Product Improvement (P3I) initiative for NCDOC which upgrades end-of-life equipment with more robust capability required at NCDOC. NCDOC is the designated Navy CND service provider, whose mission is to coordinate, monitor, analyze, and oversee the defense of Navy computer networks, NOCs, systems and is responsible for accomplishing CND missions as assigned by Commander, U.S. Tenth Fleet (COMTENTHFLT) and Commander, U.S. Cyber Command (USCC). NOCs provide regional protection to shore and afloat assets within their area of responsibility (AOR); NCDOC provides Navy-wide monitoring and defense for all the Navy NOCs. This effort will transition Information Assurance (IA) systems and capabilities from NCDOC. Resources will be used to upgrade sensor grids and data correlation tools, and to enhance the Cyber Defense Mission Support System (CDMSS) architectural framework to provide the necessary storage capability and processing power for NCDOC to successfully ingest and analyze increased volumes of data from additional sources; information will then be disseminated to Navy decision makers as their roles require. Deployment of Cyber Remediation will achieve improved network defense and security wholeness, countering intruders and attacks aimed at disrupting tactical communications at the afloat gateways and shore commands. Cyber Remediation capabilities will accelerate the Navy's ability to prevent, constrain and mitigate cyber-attacks and critical vulnerabilities as well as provide greater resiliency, awareness, data analytics, redundancy and diversity into the Navy's Defense-in-Depth (DiD) strategy. CND shore sites will provide modern network sensors improving the ability to detect unusual network patterns and prevent/deter malicious attacks. SHARKCAGE enables Cyber Protection Teams (CPT) the ability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Enable warfighters to assess the effectiveness of actions to recover, restore, and reconstitute cyber services/infrastructure. Support Task Force Cyber Awakening (TFCA)/Cybersafe control points and protect IT-enabled systems. Enable afloat Boundary Defense Capabilities (BDC) for C4I, and combat system networks. The Navy Nuclear Command, Control, and Communications (NC3-N) network which supports Emergency Action Messages (EAM) transmission to ashore and afloat adds CND capabilities at NCDOC, Broadcast Control Authority (BCA), Fixed Submarine Broadcast System (FSBS) in support of the national NC3 mission.

CND Inc 2 Shore procurement/installation quantity represents multiple CND architectures with an assortment of builds that are specifically designed to each site. Unit cost fluctuations vary with site type as well as variant being fielded to that site. Installation cost will vary based on equipment installed/removed as well as location. In accordance with CND's rapid IT fielding, CND procurement costs will vary year to year due to delivering capabilities determined by the CND Capabilities Steering Group (CCSG).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Ashore (DA070)</i>													
A Kits													
Recurring													
1.1.1) SHARKCAGE Fly Away Kit (FAK) - Organic ⁽⁶⁾	- / -	- / -	- / -	- / -	- / -	- / -	5 / 1.930	15 / 5.790	15 / 5.790	10 / 3.860	Continuing	Continuing	
1.1.2) Networks Operation Centers (NOC) - NonOrganic ⁽⁷⁾	14 / 13.154	6 / 9.513	5 / 5.057	4 / 3.739	- / -	4 / 3.739	4 / 3.490	4 / 3.770	4 / 3.706	4 / 4.615	Continuing	Continuing	
1.1.3) Navy Cyber Defense Operations Command (NCDOC) - NonOrganic ⁽⁸⁾	4 / 4.811	2 / 3.204	2 / 2.073	2 / 2.014	- / -	2 / 2.014	2 / 2.074	2 / 2.162	2 / 2.142	2 / 2.607	Continuing	Continuing	
1.1.4) Theater Network Operations & Security Center (TNOSC) - NonOrganic ⁽⁹⁾	9 / 8.789	4 / 6.260	5 / 5.880	3 / 2.764	- / -	3 / 2.764	3 / 2.747	3 / 2.719	3 / 2.781	3 / 3.532	Continuing	Continuing	
1.1.5) Broadcast Control Authorities (BCA) - NonOrganic ⁽¹⁰⁾	8 / 1.408	4 / 3.996	4 / 0.603	4 / 0.661	- / -	4 / 0.661	4 / 0.684	4 / 0.695	4 / 1.161	4 / 0.721	Continuing	Continuing	
1.1.6) Navy Enterprise Network (ONE-Net) Local Network Service Centers (LNSC) - NonOrganic ⁽¹¹⁾	13 / 1.488	- / -	- / -	11 / 0.770	- / -	11 / 0.770	- / -	- / -	11 / 0.825	- / -	Continuing	Continuing	
1.1.7) Fixed Submarine Broadcast System (FSBS) - NonOrganic ⁽¹²⁾	- / -	- / -	- / -	7 / 2.000	- / -	7 / 2.000	7 / 2.891	7 / 2.926	7 / 3.112	7 / 5.023	Continuing	Continuing	
1.1.8) SHARKCAGE Suite - NonOrganic ⁽¹³⁾	- / -	- / -	- / -	- / -	- / -	- / -	3 / 6.607	2 / 5.048	3 / 4.677	4 / 6.236	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 29.650</i>	<i>- / 22.973</i>	<i>- / 13.613</i>	<i>- / 11.948</i>	<i>- / -</i>	<i>- / 11.948</i>	<i>- / 20.423</i>	<i>- / 23.110</i>	<i>- / 24.194</i>	<i>- / 26.594</i>	<i>Continuing</i>	<i>Continuing</i>	
B Kits													
Recurring													
2.1.1) P3I: NCDOC Upgrade - Organic ⁽¹⁴⁾	2 / 10.826	- / -	1 / 1.400	1 / 1.842	- / -	1 / 1.842	1 / 1.073	1 / 1.575	1 / 1.677	1 / 1.707	Continuing	Continuing	
2.1.2) Virtual Training Environment - Organic ⁽¹⁵⁾	1 / 1.655	- / -	1 / 1.056	1 / 0.765	- / -	1 / 0.765	1 / 0.215	1 / 1.894	1 / 0.224	1 / 0.233	Continuing	Continuing	
2.1.3) CND Production Labs - Organic ⁽¹⁶⁾	9 / 12.048	3 / 4.906	3 / 3.570	3 / 3.863	- / -	3 / 3.863	3 / 1.488	3 / 2.925	3 / 3.159	3 / 3.274	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 24.529</i>	<i>- / 4.906</i>	<i>- / 6.026</i>	<i>- / 6.470</i>	<i>- / -</i>	<i>- / 6.470</i>	<i>- / 2.776</i>	<i>- / 6.394</i>	<i>- / 5.060</i>	<i>- / 5.214</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Computer Network Defense (CND) Increment 2- Ashore (DA070)</i>	<i>60 / 54.179</i>	<i>19 / 27.879</i>	<i>21 / 19.639</i>	<i>36 / 18.418</i>	<i>- / -</i>	<i>36 / 18.418</i>	<i>33 / 23.199</i>	<i>42 / 29.504</i>	<i>54 / 29.254</i>	<i>39 / 31.808</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 54.179</i>	<i>- / 27.879</i>	<i>- / 19.639</i>	<i>- / 18.418</i>	<i>- / -</i>	<i>- / 18.418</i>	<i>- / 23.199</i>	<i>- / 29.504</i>	<i>- / 29.254</i>	<i>- / 31.808</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
3.1) Train-the-Trainer	- / 1.687	- / 0.668	- / 0.800	- / 0.890	- / -	- / 0.890	- / 0.925	- / 1.033	- / 1.114	- / 1.114	Continuing	Continuing	
3.2) Production Support	- / 3.015	- / 1.015	- / 0.917	- / 0.756	- / -	- / 0.756	- / 0.782	- / 1.012	- / 1.007	- / 1.008	Continuing	Continuing	
3.3) DSA	- / 2.146	- / 0.825	- / 0.771	- / 0.747	- / -	- / 0.747	- / 0.744	- / 0.736	- / 0.826	- / 0.910	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs: 0303140N					
Financial Plan	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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	
<i>Subtotal: Support</i>	- / 6.848	- / 2.508	- / 2.488	- / 2.393	- / -	- / 2.393	- / 2.451	- / 2.781	- / 2.947	- / 3.032	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1:</i> Computer Network Defense (CND) Increment 2- Ashore (DA070)	- / 9.814	- / 4.055	- / 7.895	- / 5.184	- / -	- / 5.184	- / 6.095	- / 6.131	- / 6.719	- / 7.795	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 9.814	- / 4.055	- / 7.895	- / 5.184	- / -	- / 5.184	- / 6.095	- / 6.131	- / 6.719	- / 7.795	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	70.841	34.442	30.022	25.995	-	25.995	31.745	38.416	38.920	42.635	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)

Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Ashore (DA070)

Manufacturer Information

Manufacturer Name: SSC Atlantic	Manufacturer Location: Charleston, SC
Administrative Leadtime (in Months): 2	Production Leadtime (in Months): 3

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Dec 2014	Dec 2015	Dec 2016				
Delivery Dates	Mar 2015	Mar 2016	Mar 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Computer Network Defense (CND) Increment 2- Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	44 / 9.814	4 / 0.935	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	48 / 10.749
FY 2015	- / -	11 / 3.120	5 / 2.108	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 5.228
FY 2016	- / -	- / -	16 / 5.787	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 5.787
FY 2017	- / -	- / -	- / -	31 / 5.184	- / -	31 / 5.184	- / -	- / -	- / -	- / -	- / -	31 / 5.184
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	23 / 6.095	- / -	- / -	- / -	- / -	23 / 6.095
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	22 / 6.131	- / -	- / -	- / -	22 / 6.131
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 6.719	- / -	- / -	34 / 6.719
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	24 / 7.795	- / -	24 / 7.795
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	44 / 9.814	15 / 4.055	21 / 7.895	31 / 5.184	- / -	31 / 5.184	23 / 6.095	22 / 6.131	34 / 6.719	24 / 7.795	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	44	4	-	5	6	5	-	4	12	-	21	-	10	-	10	2	11	-	8	6	8	-	9	2	23	-	9	2	13	Cont.	Cont.
Out	44	4	-	2	9	5	-	2	13	1	21	-	10	-	10	1	12	-	8	5	9	-	9	1	24	-	9	1	14	Cont.	Cont.

Method of Implementation (Organic): SHARKCAGE Fly Away Kit (FAK) - Not Installed **Installation Quantity:** 0

Method of Implementation (Organic): P3I: NCD0C Upgrade - Not Installed **Installation Quantity:** 0

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 2 / Computer Network Defense (CND) Increment 2- Ashore (DA070)

Modification Item 1 of 1: Computer Network Defense (CND) Increment 2- Ashore (DA070)

Installation Information

Method of Implementation (Organic): Virtual Training Environment - Not Installed	Installation Quantity: 0
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Method of Implementation (Organic): CND Production Labs - Not Installed	Installation Quantity: 0
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Footnotes:

(6) SHARKCAGE Fly Away Kits (FAK) - SHARKCAGE funding allows Cyber Protection Teams (CPT) the ability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(7) Networks Operation Centers (NOC) - NOC quantities represents multiple CND architectures and builds that are specifically procured for each site. Unit cost fluctuations vary by site type and variant. Installation cost will vary based on equipment being installed. Due to CND's rapid IT fielding, procurement costs will vary in order to meet mandated cyber security initiatives. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(8) Navy Cyber Defense Operations Command (NCDOC) - Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(9) Theater Network Operations & Security Center (TNOSC) - Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(10) Broadcast Control Authorities (BCA) - Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(11) Navy Enterprise Network (ONE-Net) Local Network Service Centers (LNSC) - ONE-Net Security initiative is the reconfiguration effort to create increased failover capability between ONE-Net sites. CND is accelerating efforts to LNSC sites with follow-on tech refresh every three years due to CND's minimal footprint. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(12) Fixed Submarine Broadcast System (FSBS) - Additional funding received in FY17 to field CND capabilities in support of the Nuclear Command, Control, and Communications (NC3-N) initiative to defend networks supporting Emergency Action Messages (EAM) transmission. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(13) SHARKCAGE Suite - SHARKCAGE funding in FY18-FY21 provides the capability to analyze active cyber threats and take actions to contain/stop actual or potential threat activities. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(14) Pre-Planned Product Improvement (P3I) initiative for Navy Cyber Defense Operations Command (NCDOC) supports a major upgrade of end-of-life equipment with more robust capability that is required to support the NCDOC mission. Continuing improvements planned in the out years. P3I upgrade supports the procurement of additional Operation Rolling Tide (ORT)/cyber remediation tools. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(15) Virtual Training Environment - CND is designated Training Support Agent (TSA) IAW OPNAV 11102.2. CND is required to transition equipment to an approved solution at the schoolhouses. Full overhaul/tech refresh required every three years; mandatory system upgrades required annually. No associated install costs. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

(16) CND Production Labs - Procurement of production representative systems for the CND Production Labs. No associated install costs. Unit cost fluctuations vary with site type as well as variant being fielded to that site.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15				P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 3 / Navy Cryptography (Crypto) - Afloat (DA071)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	445.709	25.359	39.431	35.424	-	35.424	33.367	25.216	12.306	10.567	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	445.709	25.359	39.431	35.424	-	35.424	33.367	25.216	12.306	10.567	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	445.709	25.359	39.431	35.424	-	35.424	33.367	25.216	12.306	10.567	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Navy Cryptography (Crypto) procures cryptographic equipment which includes families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories.

Crypto Data products include KIV-7M (COMSEC Serial Crypto Replacement), KW-46, Cryptographic Universal Enclosures (CUE), In-Line Network Encryptors (INE), and AN-PYQ-20(v)(c).

Crypto Voice products include VINSON/Advanced Narrowband Digital Voice Terminal Cryptographic Modernization (VACM).

Advanced Cryptographic Capability (ACC) is only required by shore sites.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 3 / Navy Cryptography (Crypto) - Afloat (DA071)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)</i>													
B Kits													
Recurring													
1.1.1) Crypto (PY) - Organic	993 / 10.146	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	993 / 10.146	
1.1.2) Crypto (PY) (Installed) - NonOrganic	415 / 267.648	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	415 / 267.648	
1.1.3) In-Line Network Encryptors (INE) - Organic	4,320 / 58.122	375 / 4.500	397 / 4.764	104 / 1.248	- / -	104 / 1.248	163 / 1.956	261 / 3.132	118 / 1.416	216 / 2.592	Continuing	Continuing	
1.1.4) KW-46 - NonOrganic	38 / 1.179	68 / 2.006	47 / 1.387	68 / 2.007	- / -	68 / 2.007	- / -	- / -	- / -	- / -	- / -	221 / 6.579	
1.1.5) COMSEC Serial Crypto Replacement (Phase II) - NonOrganic ⁽¹⁷⁾	20 / 0.361	41 / 0.718	34 / 0.595	22 / 0.440	- / -	22 / 0.440	- / -	1 / 0.020	- / -	- / -	- / -	118 / 2.134	
1.1.6) Cryptographic Universal Enclosures (CUE) CSRR - NonOrganic	26 / 7.415	12 / 1.366	9 / 1.024	8 / 0.920	- / -	8 / 0.920	3 / 0.347	- / -	- / -	- / -	- / -	58 / 11.072	
1.1.7) VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - NonOrganic ⁽¹⁸⁾	- / -	- / -	67 / 10.711	49 / 10.271	- / -	49 / 10.271	37 / 13.425	80 / 19.200	60 / 6.737	82 / 5.625	Continuing	Continuing	
<i>Subtotal: Recurring</i>	<i>- / 344.871</i>	<i>- / 8.590</i>	<i>- / 18.481</i>	<i>- / 14.886</i>	<i>- / -</i>	<i>- / 14.886</i>	<i>- / 15.728</i>	<i>- / 22.352</i>	<i>- / 8.153</i>	<i>- / 8.217</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Navy Cryptography (Crypto) - Afloat (DA071)</i>	<i>5,812 / 344.871</i>	<i>496 / 8.590</i>	<i>554 / 18.481</i>	<i>251 / 14.886</i>	<i>- / -</i>	<i>251 / 14.886</i>	<i>203 / 15.728</i>	<i>342 / 22.352</i>	<i>178 / 8.153</i>	<i>298 / 8.217</i>	<i>Continuing</i>	<i>Continuing</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 344.871</i>	<i>- / 8.590</i>	<i>- / 18.481</i>	<i>- / 14.886</i>	<i>- / -</i>	<i>- / 14.886</i>	<i>- / 15.728</i>	<i>- / 22.352</i>	<i>- / 8.153</i>	<i>- / 8.217</i>	<i>Continuing</i>	<i>Continuing</i>	
Support (All Modification Items)													
2.1) Production Support	- / 23.243	- / 0.268	- / 0.658	- / 0.437	- / -	- / 0.437	- / 0.490	- / 0.678	- / 0.249	- / 0.236	Continuing	Continuing	
2.2) DSA ⁽¹⁹⁾	- / 18.129	- / 5.793	- / 7.460	- / 6.316	- / -	- / 6.316	- / 4.885	- / 0.266	- / 0.476	- / 0.336	Continuing	Continuing	
<i>Subtotal: Support</i>	<i>- / 41.372</i>	<i>- / 6.061</i>	<i>- / 8.118</i>	<i>- / 6.753</i>	<i>- / -</i>	<i>- / 6.753</i>	<i>- / 5.375</i>	<i>- / 0.944</i>	<i>- / 0.725</i>	<i>- / 0.572</i>	<i>Continuing</i>	<i>Continuing</i>	
Installation													
<i>Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)</i>	<i>- / 59.466</i>	<i>- / 10.708</i>	<i>- / 12.832</i>	<i>- / 13.785</i>	<i>- / -</i>	<i>- / 13.785</i>	<i>- / 12.264</i>	<i>- / 1.920</i>	<i>- / 3.428</i>	<i>- / 1.778</i>	Continuing	Continuing	
<i>Subtotal: Installation</i>	<i>- / 59.466</i>	<i>- / 10.708</i>	<i>- / 12.832</i>	<i>- / 13.785</i>	<i>- / -</i>	<i>- / 13.785</i>	<i>- / 12.264</i>	<i>- / 1.920</i>	<i>- / 3.428</i>	<i>- / 1.778</i>	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	445.709	25.359	39.431	35.424	-	35.424	33.367	25.216	12.306	10.567	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 3 / Navy Cryptography (Crypto) - Afloat (DA071)

Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)

Manufacturer Information

Manufacturer Name: KW-46 - NSA Managed ⁽²⁰⁾				Manufacturer Location: Columbia, Maryland			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 7			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017				
Delivery Dates	Sep 2015	Sep 2016	Sep 2017				

Manufacturer Name: COMSEC (Phase II) - NSA Managed ⁽²¹⁾				Manufacturer Location: Waltham, Massachusetts			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 7			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017				
Delivery Dates	Sep 2015	Sep 2016	Sep 2017				

Manufacturer Name: VACM - USAF Managed ⁽²²⁾				Manufacturer Location: Fort Wayne, Indiana			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016	Dec 2016				
Delivery Dates		Mar 2017	Dec 2017				

Manufacturer Name: CUE - CSRR - SPAWAR Systems Center Pacific				Manufacturer Location: San Diego, CA			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 7			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017				
Delivery Dates	Sep 2015	Sep 2016	Sep 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Communications Security (COMSEC / CRYPTO) - Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	442 / 59.466	57 / 7.418	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	499 / 66.884
FY 2015	- / -	22 / 3.290	99 / 10.777	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	121 / 14.067
FY 2016	- / -	- / -	19 / 2.055	138 / 11.847	- / -	138 / 11.847	- / -	- / -	- / -	- / -	- / -	157 / 13.902
FY 2017	- / -	- / -	- / -	21 / 1.938	- / -	21 / 1.938	126 / 11.331	- / -	- / -	- / -	- / -	147 / 13.269

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 3 / Navy Cryptography (Crypto) - Afloat (DA071)

Modification Item 1 of 1: Navy Cryptography (Crypto) - Afloat (DA071)

Installation Information

Method of Implementation: Installed:: Installation Name: Communications Security (COMSEC / CRYPTO) - Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.933	37 / 1.920	- / -	- / -	- / -	40 / 2.853
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	81 / 3.428	- / -	- / -	81 / 3.428
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	60 / 1.778	- / -	60 / 1.778
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	442 / 59.466	79 / 10.708	118 / 12.832	159 / 13.785	- / -	159 / 13.785	129 / 12.264	37 / 1.920	81 / 3.428	60 / 1.778	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	430	12	19	18	20	22	34	30	35	19	67	31	32	29	44	37	38	10	16	4	7	10	17	20	32	12	40	4	11	Cont.	Cont.
Out	430	10	19	16	23	19	32	29	35	25	66	29	31	33	41	39	39	10	17	4	7	10	17	20	32	12	40	4	11	Cont.	Cont.

Method of Implementation (Organic): Crypto (PY)	Installation Quantity: 993
Method of Implementation (Organic): In-Line Network Encryptors (INE)	Installation Quantity: 0

Footnotes:

- (17) COMSEC Serial Crypto Replacement (Phase II) procure KIV-7M and ancillary equipment for installation of Secret (S) circuit requirements.
- (18) VINSON/Advanced Narrowband Digital Voice Terminal Crypto Modernization (VACM) unit cost fluctuations are due to the difference in the unit configurations for Navy platforms, as well as differences in configurations of United States Coast Guard (USCG) and Military Sealift Command (MSC) platforms. FY17 fielding plan requirements include a greater number of force level as opposed to unit level platforms than in FY16. Correspondingly, the unit cost increases from FY16 to FY17. Updated VACM quantities are due to shifts in fielding plan and revisions to production lead times as well as Naval Air Systems Command (NAVAIR) and United States Marine Corps (USMC) requirements. VACM (NonOrganic) devices are installed across five quarters due to procurements and installation lead times required to meet contractual agreements and support fleet availability.
- (19) VACM Design Services Agency (DSA) cost fluctuations are due to the unit configuration on the various defense agencies.
- (20) Raytheon is the KW-46 manufacturer through the National Security Agency (NSA).
- (21) Raytheon is the COMSEC Phase II manufacturer through NSA.
- (22) Raytheon is the VACM manufacturer through United States Air Force (USAF). Production leadtime adjusted to 12 months in accordance with USAF guidance.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15				P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 4 / Navy Cryptography (Crypto) - Ashore (DA071)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	622.071	0.603	29.779	3.631	-	3.631	10.936	21.008	35.758	37.822	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	622.071	0.603	29.779	3.631	-	3.631	10.936	21.008	35.758	37.822	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	622.071	0.603	29.779	3.631	-	3.631	10.936	21.008	35.758	37.822	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Navy Crypto procures cryptographic equipment which includes families of Communications Security (COMSEC) and Transmission Security (TRANSEC) devices that are divided into crypto voice, crypto data, and crypto products and associated ancillary devices. These devices provide modern cryptographic solutions to replace obsolete, legacy devices within the crypto categories.

Crypto Data products include KIV-7M (COMSEC Serial Crypto Replacement), In-Line Network Encryptors (INE), and Advanced Cryptographic Capability (ACC). Crypto Voice products include VINSON/Advanced Narrowband Digital Voice Terminal Cryptographic Modernization (VACM).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 4 / Navy Cryptography (Crypto) - Ashore (DA071)			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)</i>													
B Kits													
Recurring													
1.1.1) Crypto (PY) - Organic	1,129 / 20.316	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1,129 / 20.316	
1.1.2) VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM) - Organic ⁽²³⁾	500 / 5.500	- / -	2,396 / 23.481	242 / 2.372	- / -	242 / 2.372	137 / 1.343	822 / 8.056	1,932 / 18.934	1,410 / 13.818	Continuing	Continuing	
1.1.3) Advanced Cryptographic Capability (ACC) - Organic ⁽²⁴⁾	- / -	- / -	- / -	33 / 0.017	- / -	33 / 0.017	5,674 / 2.837	6,410 / 3.205	8,625 / 4.313	10,916 / 5.458	Continuing	Continuing	
1.1.4) Crypto Devices (PY) (Installed) - NonOrganic	320 / 314.143	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	320 / 314.143	
1.1.5) VACM - NonOrganic	- / -	- / -	19 / 5.204	- / -	- / -	- / -	31 / 6.390	28 / 6.958	68 / 10.349	12 / 15.249	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 339.959	- / -	- / 28.685	- / 2.389	- / -	- / 2.389	- / 10.570	- / 18.219	- / 33.596	- / 34.525	Continuing	Continuing	
<i>Subtotal: Navy Cryptography (Crypto) - Ashore (DA071)</i>	1,949 / 339.959	- / -	2,415 / 28.685	275 / 2.389	- / -	275 / 2.389	5,842 / 10.570	7,260 / 18.219	10,625 / 33.596	12,338 / 34.525	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 339.959	- / -	- / 28.685	- / 2.389	- / -	- / 2.389	- / 10.570	- / 18.219	- / 33.596	- / 34.525	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 5.133	- / -	- / 1.094	- / 0.077	- / -	- / 0.077	- / 0.366	- / 0.632	- / 1.143	- / 1.145	Continuing	Continuing	
2.2) Pre-Design Install Planning	- / 6.082	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.082	
<i>Subtotal: Support</i>	- / 11.215	- / -	- / 1.094	- / 0.077	- / -	- / 0.077	- / 0.366	- / 0.632	- / 1.143	- / 1.145	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)</i>	- / 270.897	- / 0.603	- / -	- / 1.165	- / -	- / 1.165	- / -	- / 2.157	- / 1.019	- / 2.152	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 270.897	- / 0.603	- / -	- / 1.165	- / -	- / 1.165	- / -	- / 2.157	- / 1.019	- / 2.152	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	622.071	0.603	29.779	3.631	-	3.631	10.936	21.008	35.758	37.822	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 4 / Navy Cryptography (Crypto) - Ashore (DA071)

Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)

Manufacturer Information

Manufacturer Name: VACM - USAF ⁽²⁵⁾				Manufacturer Location: Fort Wayne, Indiana			
Administrative Leadtime (in Months): 2				Production Leadtime (in Months): 12			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates		Mar 2016	Dec 2016				
Delivery Dates		Mar 2017	Dec 2017				
Manufacturer Name: ACC - SSC PAC				Manufacturer Location: San Diego, CA			
Administrative Leadtime (in Months): 4				Production Leadtime (in Months): 7			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Feb 2017				
Delivery Dates			Sep 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Communications Security (COMSEC / CRYPTO) - Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	303 / 270.897	17 / 0.603	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	320 / 271.500
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	19 / 1.165	- / -	19 / 1.165	- / -	- / -	- / -	- / -	- / -	19 / 1.165
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	31 / 2.157	- / -	- / -	- / -	31 / 2.157
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	28 / 1.019	- / -	- / -	28 / 1.019
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	68 / 2.152	- / -	68 / 2.152
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	303 / 270.897	17 / 0.603	- / -	19 / 1.165	- / -	19 / 1.165	- / -	31 / 2.157	28 / 1.019	68 / 2.152	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	303	-	6	-	11	-	-	-	-	-	19	-	-	-	-	-	-	-	24	-	7	-	19	7	2	-	43	25	-	Cont.	Cont.
Out	303	-	6	-	11	-	-	-	-	-	19	-	-	-	-	-	-	-	24	-	7	-	19	7	2	-	43	25	-	Cont.	Cont.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 4 / Navy Cryptography (Crypto) - Ashore (DA071)

Modification Item 1 of 1: Navy Cryptography (Crypto) - Ashore (DA071)

Installation Information

Method of Implementation (Organic): Crypto (PY)	Installation Quantity: 1129
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Method of Implementation (Organic): VINSON/Advanced Narrowband Digital Voice Terminal CM (VACM)	Installation Quantity: 0
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Method of Implementation (Organic): Advanced Cryptographic Capability (ACC)	Installation Quantity: 0
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Footnotes:

⁽²³⁾ SPAWAR is the VINSON/Advanced Narrowband Digital Voice Terminal Crypto Modernization (VACM) Central Procuring Agency for the Department of the Navy (to include the Military Sealift Command (MSC), Marine Corps and NAVAIR) and the Coast Guard. The NAVAIR and Marine Corps VACM quantities are procurement only whereas the MSC and Coast Guard quantities also include installation costs. Updated VACM quantities are due to shifts in fielding plan and revisions to production lead times as well as Naval Air Systems Command (NAVAIR) and United States Marine Corps (USMC) requirements.

⁽²⁴⁾ Advanced Cryptographic Capability (ACC) replaces EFF and combines EFF requirements with additional security enhancements

⁽²⁵⁾ Raytheon is the VACM manufacturer through USAF. Production leadtime adjusted to 12 months in accordance with USAF guidance.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15			P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 5 / Key Management (KM) - Afloat (DA005)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	57.050	10.546	12.700	9.009	-	9.009	4.950	4.609	6.311	4.900	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	57.050	10.546	12.700	9.009	-	9.009	4.950	4.609	6.311	4.900	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	57.050	10.546	12.700	9.009	-	9.009	4.950	4.609	6.311	4.900	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Key Management (KM) is a collection of Tier 2 security equipment, Key Management Infrastructure (KMI), and Tier 3 equipment Simple Key Loader (SKL).

KMI is the next generation Tier 2 product to replace the legacy Local Management Device/Key Processor (LMD/KP) Electronic Key Management System (EKMS). KMI includes the Management Client (MGC), Advanced Key Processor (AKP) and High Assurance Internet Protocol Equipment (HAIZE) devices. KMI provides a net-centric, web based architecture for the ordering, management and distribution of all cryptographic key material to support Navy users. KMI Tech Refresh / Spiral 3 will be required to upgrade all KMI Spiral 2 systems in a 5 year cycle.

SKL is the next generation Tier 3 Data Transfer Device (DTD) that stores, manages, transfers and loads cryptographic key material and Communications Security (COMSEC) data through automatic loading of End Cryptographic Units (ECU).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 5 / Key Management (KM) - Afloat (DA005)			
Models of Systems Affected: [No Model Specified]			Modification Type: TBD					Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Key Management (KM) - Afloat (DA005)</i>													
B Kits													
Recurring													
1.1.1) Key Management (KM) (PY) - Organic	642 / 6.128	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	642 / 6.128	
1.1.2) Simple Key Loader (SKL) - Organic ⁽²⁶⁾	7,668 / 39.855	132 / 0.459	115 / 0.401	1,037 / 3.650	- / -	1,037 / 3.650	1,263 / 4.462	480 / 1.696	158 / 0.560	279 / 0.993	Continuing	Continuing	
1.1.3) KM (PY) - NonOrganic	295 / 0.295	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	295 / 0.295	
1.1.4) KMI Spiral 2 - NonOrganic ⁽²⁷⁾	22 / 0.581	90 / 2.413	88 / 2.364	21 / 0.565	- / -	21 / 0.565	- / -	- / -	- / -	- / -	- / -	221 / 5.923	
1.1.5) KMI Tech Refresh - NonOrganic ⁽²⁸⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	29 / 0.685	65 / 1.540	9 / 0.214	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 46.859	- / 2.872	- / 2.765	- / 4.215	- / -	- / 4.215	- / 4.462	- / 2.381	- / 2.100	- / 1.207	Continuing	Continuing	
<i>Subtotal: Key Management (KM) - Afloat (DA005)</i>	8,627 / 46.859	222 / 2.872	203 / 2.765	1,058 / 4.215	- / -	1,058 / 4.215	1,263 / 4.462	509 / 2.381	223 / 2.100	288 / 1.207	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 46.859	- / 2.872	- / 2.765	- / 4.215	- / -	- / 4.215	- / 4.462	- / 2.381	- / 2.100	- / 1.207	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 2.557	- / 0.112	- / 0.092	- / 0.148	- / -	- / 0.148	- / 0.164	- / 0.066	- / 0.081	- / 0.055	Continuing	Continuing	
2.2) Train the Trainer	- / -	- / 0.099	- / 0.105	- / 0.096	- / -	- / 0.096	- / 0.136	- / 0.087	- / 0.042	- / 0.088	Continuing	Continuing	
2.3) DSA	- / 15.125	- / 4.413	- / 2.988	- / 0.800	- / -	- / 0.800	- / 0.188	- / 1.825	- / 2.138	- / 0.800	Continuing	Continuing	
<i>Subtotal: Support</i>	- / 17.682	- / 4.624	- / 3.185	- / 1.044	- / -	- / 1.044	- / 0.488	- / 1.978	- / 2.261	- / 0.943	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: Key Management (KM) - Afloat (DA005)</i>	- / 2.509	- / 3.050	- / 6.750	- / 3.750	- / -	- / 3.750	- / -	- / 0.250	- / 1.950	- / 2.750	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 2.509	- / 3.050	- / 6.750	- / 3.750	- / -	- / 3.750	- / -	- / 0.250	- / 1.950	- / 2.750	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	57.050	10.546	12.700	9.009	-	9.009	4.950	4.609	6.311	4.900	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 5 / Key Management (KM) - Afloat (DA005)

Modification Item 1 of 1: Key Management (KM) - Afloat (DA005)

Manufacturer Information

Manufacturer Name: Simple Key Loader (SKL) - Army Managed	Manufacturer Location: Fort Huachuca, AZ
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jun 2015	Feb 2016	Feb 2017				
Delivery Dates	Aug 2015	Apr 2016	Apr 2017				

Manufacturer Name: KMI Spiral 2 - NSA Managed	Manufacturer Location: Fort Meade, MD
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 4

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jun 2015	Mar 2016	Mar 2017				
Delivery Dates	Oct 2015	Jul 2016	Jul 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Key Management Infrastructure (KMI) - Afloat

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	298 / 2.509	19 / 1.300	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	317 / 3.809
FY 2015	- / -	25 / 1.750	65 / 4.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	90 / 5.750
FY 2016	- / -	- / -	44 / 2.750	44 / 2.700	- / -	44 / 2.700	- / -	- / -	- / -	- / -	- / -	88 / 5.450
FY 2017	- / -	- / -	- / -	21 / 1.050	- / -	21 / 1.050	- / -	- / -	- / -	- / -	- / -	21 / 1.050
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 0.250	24 / 1.150	- / -	- / -	29 / 1.400
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	16 / 0.800	49 / 2.300	- / -	65 / 3.100
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 0.450	- / -	9 / 0.450
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	298 / 2.509	44 / 3.050	109 / 6.750	65 / 3.750	- / -	65 / 3.750	- / -	5 / 0.250	40 / 1.950	58 / 2.750	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot	
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
In	298	-	5	9	16	14	30	28	33	18	20	21	14	10	-	-	-	-	-	-	-	1	4	9	12	6	13	22	21	15	Cont.	Cont.
Out	298	-	3	11	15	15	30	24	32	23	19	19	13	13	1	-	-	-	-	-	-	1	4	9	12	6	12	22	19	17	Cont.	Cont.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 5 / Key Management (KM) - Afloat (DA005)

Modification Item 1 of 1: Key Management (KM) - Afloat (DA005)

Installation Information

Method of Implementation (Organic): Key Management (KM) (PY) - Not Installed	Installation Quantity: 642
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Method of Implementation (Organic): Simple Key Loader (SKL) - Not Installed	Installation Quantity: 0
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Footnotes:

- ⁽²⁶⁾ Simple Key Loader (SKL) quantities adjusted to decrease the inventory objective across the Future Years Defense Program (FYDP) due to a reduction in fleet requirements and to meet KMI's high priority spiral requirements.
- ⁽²⁷⁾ KMI Spiral 2 fielding schedule adjusted to reflect Spiral 2 Spin 1 Fielding Decision achieved in 3QFY15.
- ⁽²⁸⁾ KMI Capability Increment 3 (CI-3)/Tech Refresh modernizes all KMI Spiral 2 systems within a 5 year cycle.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15				P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)				Modification Number / Title: 6 / Key Management (KM) - Ashore (DA005)				

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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	79.729	19.771	11.493	5.737	-	5.737	5.095	6.240	4.954	6.440	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	79.729	19.771	11.493	5.737	-	5.737	5.095	6.240	4.954	6.440	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	79.729	19.771	11.493	5.737	-	5.737	5.095	6.240	4.954	6.440	Continuing	Continuing
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Key Management is a collection of Tier 2 security equipment, Key Management Infrastructure (KMI) and Tier 3 equipment Simple Key Loader (SKL).

KMI is the next generation Tier 2 product to replace the legacy Local Management Device/Key Processor (LMD/KP) Electronic Key Management System (EKMS). KMI includes the Management Client (MGC), Advanced Key Processor (AKP) and High Assurance Internet Protocol Equipment (HAIZE) devices. KMI provides a net-centric, web based architecture for the ordering, management and distribution of all cryptographic key material to support Navy users. KMI Tech Refresh / Spiral 3 will be required to upgrade all KMI Spiral 2 systems in a 5 year cycle.

SKL stores, manages, transfers and loads cryptographic key material and Communications Security (COMSEC) data through automatic loading of End Cryptographic Units (ECU). SKL is the next generation Data Transfer Device (DTD), which incorporates a Personal Computer Memory Card International Association card (crypto engine), Commercial-off-the-Shelf (COTS) computer and Government-off-the-Shelf (GOTS) software.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15					P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)					Modification Number / Title: 6 / Key Management (KM) - Ashore (DA005)			
Models of Systems Affected: [No Model Specified]				Modification Type: TBD				Related RDT&E PEs: 0303140N					
Financial Plan	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	
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	
Procurement													
<i>Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)</i>													
B Kits													
Recurring													
1.1.1) Key Management (KM) (PY) - Organic	8,013 / 31.871	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8,013 / 31.871	
1.1.2) Simple Key Loader (SKL) - Organic ⁽²⁹⁾	9,054 / 26.539	199 / 0.692	272 / 0.949	1,472 / 5.181	- / -	1,472 / 5.181	1,215 / 4.293	508 / 1.798	166 / 0.589	120 / 0.427	Continuing	Continuing	
1.1.3) KM (PY) - NonOrganic	554 / 1.116	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	554 / 1.116	
1.1.4) KMI Spiral 1&2 - NonOrganic ⁽³⁰⁾	121 / 3.191	296 / 7.873	64 / 1.715	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	481 / 12.779	
1.1.5) Engineering Change Orders - Organic	- / 3.265	- / 0.729	- / 0.601	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.595	
1.1.6) KMI Tech Refresh - NonOrganic ⁽³¹⁾	- / -	- / -	- / -	- / -	- / -	- / -	- / -	110 / 2.599	64 / 1.516	124 / 2.942	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 65.982	- / 9.294	- / 3.265	- / 5.181	- / -	- / 5.181	- / 4.293	- / 4.397	- / 2.105	- / 3.369	Continuing	Continuing	
<i>Subtotal: Key Management (KM) - Ashore (DA005)</i>	17,742 / 65.982	495 / 9.294	336 / 3.265	1,472 / 5.181	- / -	1,472 / 5.181	1,215 / 4.293	618 / 4.397	230 / 2.105	244 / 3.369	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 65.982	- / 9.294	- / 3.265	- / 5.181	- / -	- / 5.181	- / 4.293	- / 4.397	- / 2.105	- / 3.369	Continuing	Continuing	
Support (All Modification Items)													
2.1) Production Support	- / 3.264	- / 0.450	- / 0.141	- / 0.184	- / -	- / 0.184	- / 0.148	- / 0.165	- / 0.079	- / 0.104	Continuing	Continuing	
2.2) Train the Trainer	- / -	- / 0.152	- / 0.097	- / 0.172	- / -	- / 0.172	- / 0.102	- / 0.135	- / 0.083	- / 0.092	Continuing	Continuing	
2.3) Pre-Design Install Planning	- / 3.078	- / 3.475	- / 0.090	- / -	- / -	- / -	- / 0.552	- / 0.693	- / 1.362	- / -	- / -	- / 9.250	
<i>Subtotal: Support</i>	- / 6.342	- / 4.077	- / 0.328	- / 0.356	- / -	- / 0.356	- / 0.802	- / 0.993	- / 1.524	- / 0.196	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)</i>	- / 7.405	- / 6.400	- / 7.900	- / 0.200	- / -	- / 0.200	- / -	- / 0.850	- / 1.325	- / 2.875	Continuing	Continuing	
<i>Subtotal: Installation</i>	- / 7.405	- / 6.400	- / 7.900	- / 0.200	- / -	- / 0.200	- / -	- / 0.850	- / 1.325	- / 2.875	Continuing	Continuing	
Total													
Total Cost (Procurement + Support + Installation)	79.729	19.771	11.493	5.737	-	5.737	5.095	6.240	4.954	6.440	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 6 / Key Management (KM) - Ashore (DA005)

Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)

Manufacturer Information

Manufacturer Name: Simple Key Loader (SKL) - Army Managed	Manufacturer Location: Fort Huachuca, AZ
Administrative Leadtime (in Months): 4	Production Leadtime (in Months): 2

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Feb 2015	Feb 2016	Feb 2017				
Delivery Dates	Apr 2015	Apr 2016	Apr 2017				

Manufacturer Name: KMI Spiral 1 / 2 - NSA Managed	Manufacturer Location: Charleston, NC
Administrative Leadtime (in Months): 5	Production Leadtime (in Months): 4

Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Mar 2015	Mar 2016	Mar 2017				
Delivery Dates	Jul 2015	Jul 2016	Jul 2017				

Installation Information

Method of Implementation: Installed:: Installation Name: Key Management Infrastructure (KMI) - Shore

Installation Cost	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
	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)	Qty (Each) / Total Cost (\$ M)
Prior Years	567 / 7.405	108 / 2.350	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	675 / 9.755
FY 2015	- / -	125 / 4.050	171 / 5.900	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	296 / 9.950
FY 2016	- / -	- / -	40 / 2.000	24 / 0.200	- / -	24 / 0.200	- / -	- / -	- / -	- / -	- / -	64 / 2.200
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	34 / 0.850	76 / 1.300	- / -	- / -	110 / 2.150
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	21 / 0.025	43 / 0.375	- / -	64 / 0.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	124 / 2.500	- / -	124 / 2.500
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing
Total	567 / 7.405	233 / 6.400	211 / 7.900	24 / 0.200	- / -	24 / 0.200	- / -	34 / 0.850	97 / 1.325	167 / 2.875	Continuing	Continuing

Installation Schedule

	PYS	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				TC	Tot
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
In	567	1	48	59	83	42	112	47	44	8	-	22	2	-	-	-	-	-	-	-	14	20	55	19	2	21	26	17	-	Cont.	Cont.
Out	567	1	48	59	83	42	112	47	44	8	-	1	23	-	-	-	-	-	-	-	14	20	55	19	2	21	26	17	-	Cont.	Cont.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3415 / Info Systems Security Program (ISSP)	Modification Number / Title: 6 / Key Management (KM) - Ashore (DA005)

Modification Item 1 of 1: Key Management (KM) - Ashore (DA005)

Installation Information

Method of Implementation (Organic): Key Management (KM) (PY) - Not Installed	Installation Quantity: 8013
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Method of Implementation (Organic): Simple Key Loader (SKL) - Not Installed	Installation Quantity: 0
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Footnotes:

- ⁽²⁹⁾ Simple Key Loader (SKL) quantities adjusted to decrease the inventory objective across the Future Years Defense Program (FYDP) due to a reduction in fleet requirements and to meet KMI's high priority spiral requirements.
- ⁽³⁰⁾ KMI Spiral 2 fielding schedule adjusted to reflect Spiral 2 Spin 1 Fielding Decision achieved in 3QFY15.
- ⁽³¹⁾ KMI Capability Increment 3 (CI-3)/Tech Refresh modernizes all KMI Spiral 2 systems within a 5 year cycle.

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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 02: Communications & Electronics Equip / BSA 15: Cryptographic Equipment	P-1 Line Item Number / Title: 3417 / MIO Intel Exploitation Team
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.999	0.979	0.970	0.920	-	0.920	0.958	0.976	0.996	1.016	-	7.814
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.999	0.979	0.970	0.920	-	0.920	0.958	0.976	0.996	1.016	-	7.814
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.999	0.979	0.970	0.920	-	0.920	0.958	0.976	0.996	1.016	-	7.814

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in MIO Intel Exploitation Team by \$0.04M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

[P40A / 343SA - MIO Intel Exploitation Team (U.S. Fleet Forces Command)]: Tactical Electronic Warfare Equipment: Procure Tactical Electronic Warfare (EW) equipment to be used in support of Indications and Warning and Force Protection. The capability includes an array of Tactical EW systems capable of both digital and analogue collection in the Radio Frequency (RF) environment. Specific collection capabilities include Digital and Analogue data collection; Specific Emitter ID, which discerns unique attributes of specific radar; Satellite Communication capability; Wireless Networks to conduct surveys, which is a telecom network mapping, and Document and Media Exploitation allowing capture of media from electronic devices.

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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 02: Communications & Electronics Equip /
 BSA 15: Cryptographic Equipment **P-1 Line Item Number / Title:**
 3417 / MIO Intel Exploitation Team

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	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	MIO Intel Exploitation Team	P-5a		- / 0.999	- / 0.979	- / 0.970	- / 0.920	- / -	- / 0.920
P-40	Total Gross/Weapon System Cost			- / 0.999	- / 0.979	- / 0.970	- / 0.920	- / -	- / 0.920

*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:
 Funding will be used to purchase WideBand Transcoders. These systems allow users to record up to 80MB of spectrum and hold it for playback at another time and place. This system will allow NEIC to identify new signals of interest active in the RF spectrum.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15 **P-1 Line Item Number / Title:** 3417 / MIO Intel Exploitation Team **Aggregated Items Title:** MIO Intel Exploitation Team

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ M)	Qty (Each)	Total Cost (\$ M)
1) 343SA - MIO Intel Exploitation Team (U.S. Fleet Forces Command)																				
1.1) 343SA - Satellite Communications Equipment	A		0.155	3	0.465	-	-	-	-	-	-	0.184	5	0.920	-	-	-	0.184	5	0.920
1.2) 343SA - Wireless Networks Mapping Equipment / Surveys	A		0.178	3	0.534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.3) 343SA - Wireless Networks Telecom Equipment ^(†)	A		-	-	-	0.151	3	0.454	-	-	-	-	-	-	-	-	-	-	-	-
1.4) 343SA - Specific Emitter Identification Devices ^(†)	A		-	-	-	0.175	3	0.525	-	-	-	-	-	-	-	-	-	-	-	-
1.6) DRT 1301C+/ TRS V7 Wireless Receiving System ^(†)	A		-	-	-	-	-	-	0.124	7	0.868	-	-	-	-	-	-	-	-	-
1.7) LANSHARK 5 ^(†)	A		-	-	-	-	-	-	0.051	2	0.102	-	-	-	-	-	-	-	-	-
Subtotal: 1) 343SA - MIO Intel Exploitation Team (U.S. Fleet Forces Command)			-	-	0.999	-	-	0.979	-	-	0.970	-	-	0.920	-	-	-	-	-	0.920
Total			-	-	0.999	-	-	0.979	-	-	0.970	-	-	0.920	-	-	-	-	-	0.920

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

(†) indicates the presence of a P-5a

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 15	P-1 Line Item Number / Title: 3417 / MIO Intel Exploitation Team	Aggregated Items: MIO Intel Exploitation Team
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$ M)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
1) 343SA - MIO Intel Exploitation Team (U.S. Fleet Forces Command)												
1.3) 343SA - Wireless Networks Telcom Equipment		2015	Commercial Off-the- Shelf Technology / Various	C / IDIQ	NAVSEA/CDSA	Jan 2015	Mar 2015	3	0.151	N		
1.4) 343SA - Specific Emitter Identification Devices		2015 ⁽¹⁾	Government off the shelf / Various	MIPR	Various	Jan 2015	Mar 2015	3	0.175	N		
1.6) DRT 1301C+/TRS V7 Wireless Receiving System		2016	Digital Receiver Technology / New MFG - Loc	C / IDIQ	NAVSEA/CDSA	Oct 2015	Oct 2015	7	0.124	N		
1.7) LANSHARK 5		2016	SR Technologies Inc. / New MFG - Loc	C / IDIQ	NAVSEA/CDSA	Oct 2015	Oct 2015	2	0.051	N		

Footnotes:

⁽¹⁾ Procurement provider will be determined at later date.

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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 02: Communications & Electronics Equip / BSA 16: Cryptologic Equipment	P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	49.052	11.502	11.433	21.098	-	21.098	10.498	10.669	10.927	11.150	-	136.329
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	49.052	11.502	11.433	21.098	-	21.098	10.498	10.669	10.927	11.150	-	136.329
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	49.052	11.502	11.433	21.098	-	21.098	10.498	10.669	10.927	11.150	-	136.329

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Thousands)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Budget increase from FY 2016 to FY 2017 is for the procurement of Digital Receiver Technology (DRTs) for XP Eradication in order to maintain Information Assurance requirements. Microsoft XP is no longer a supported operating system.

Decrease in Cryptologic Communications Equipment by \$0.89M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

[P5 / 1V045 Access Systems & Subsystems]: Cryptologic Carry-On Equipment: The Cryptologic Carry-On Program (CCOP) procures state-of-the-art, commercial off-the-shelf signal acquisition equipment (hardware and software) in response to combatant commander requirements for a quick-reaction surface, subsurface, and airborne cryptologic carry-on capability. The equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare/Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT) and in concert with Shipboard Signals Exploitation Space (SSES) programs to ensure synergy and seamless transition to permanently installed SSES systems. The IPT meets several times a year and determines which SOIs/Targets on the United States Fleet Forces (USFF) SOI list need to be addressed. Due to a continually changing threat environment, detailed requirements are dynamic and equipment procured varies each year by quantity and type. Equipment suites can be configured for many targets and tasking. Target specific subsystems can either operate as stand-alone within cryptologic spaces or as an add-on to existing equipment. Hardware procurement includes: receivers, recorders, tactical computers and related peripherals, antennas, electronic-warfare support measures systems, precision geolocation equipment, advanced signal and search equipment including spectrum analyzers and associated portable special intelligence communications equipment. CCOP equipment is installed as an augment to cryptologic capabilities on subsurface, surface, and air platforms. There are approximately 124 cryptologic capable surface ships and shore sites in the current Navy inventory. Each of these are potential users of this carry-on equipment, as are subsurface and air platforms. The temporary installation of equipment is coordinated through fleet electronic support personnel; inventory allocation is managed by USFF. A primary system in inventory is the Carry On Radio Spectrum Analysis & Intelligence Reporting (CORSAIR) system. Funds continue to procure CORSAIR core architecture system upgrades to provide additional affordable functionality to the combatant commands. Additional signal acquisition equipment to address specific combatant command requirements include such systems as Digital Receiver Technology (DRT), Hostile forces Integrated Targeting Service (HITS), Maritime Toxic Pen (MTP), TURBULENTWAVE/TURBULENTWIND/TURBULENTSAIL, BLUESTREAM servers, RED FALCON/VULCAN, STINGRAY, MUDCAT, Toxic Fog, Radio Frequency Distribution Unit (RFDU), TEAPARTY/TEALEAF, and Generic Area Limitations Environment (GALE)-Lite. This line also supports the procurement of STALLION hardware for CCOP team training.

[P5 / GDX6D - Global Signal Analysis Equipment]: Global Signal Analysis Laboratory (GSAL): The Navy GSAL program, under project name CLASSIC SENSEI, provides for the timely analysis of data derived from maritime mobile Information Warfare (IW) operations. GSAL support is conducted by Signals Analysis Laboratories (SAL) co-located with Fleet Information Operations Centers (FIOC) at theater-level analysis and processing centers and by QuickLook/Nodes forward-based at fleet concentration areas. The GSAL program office equips the SALs with advanced signals analysis capabilities in order to

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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 02: Communications & Electronics Equip / BSA 16: Cryptologic Equipment		P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip
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	
<p>accomplish the high order analysis that is required to effectively address SAL processing and exploitation requirements in support of both maritime tactical and national strategic IW objectives. Additionally, SALs are equipped with specialized capabilities to support FIOC maritime Signal Descriptor File (SDF) requirements. Funding is required to maintain and sustain SAL operations while allowing for upgrades required to integrate new technology to accommodate the highly technical analysis requirements attendant with a highly diverse and constantly changing electromagnetic environment. Additionally, Navy SALs are integral components of the global collaborative enterprise architecture via the GSAL LABLINK data handling subsystem. LABLINK provides for advanced data manipulation, achieving, and forwarding/exchange while providing connectivity and global reachback in support of analysis with collaborating military, national, and international partners via signal screening and processing tools resident in LABLINK.</p> <p>[P5 / Global Signal Analysis Laboratory (GSAL)]: GDX6D - GLOBAL SIGNAL ANALYSIS LABORATORY (GSAL): The Navy GSAL program, under project name CLASSIC SENSEI, provides for the timely analysis of data derived from maritime mobile Information Warfare (IW) operations. GSAL support is conducted by Signals Analysis Laboratories (SAL) co-located with Fleet Information Operations Centers (FIOC) at theater-level analysis and processing centers and by QuickLook/Nodes forward-based at fleet concentration areas. The GSAL program office equips the SAL's with advanced signals analysis capabilities in order to accomplish the high order analysis that is required to effectively address SAL processing and exploitation requirements in support of both maritime tactical and national strategic IW objectives. Additionally, SAL's are equipped with specialized capabilities to support FIOC maritime Signal Descriptor File (SDF) requirements. Funding is required to maintain and sustain SAL operations while allowing for upgrades required to integrate new technology to accommodate the highly technical analysis requirements attendant with a highly diverse and constantly changing electromagnetic environment. Additionally, Navy SAL's are integral components of the global collaborative enterprise architecture via the GSAL LABLINK data handling subsystem. LABLINK provides for advanced data manipulation, achieving, and forwarding/exchange while providing connectivity and global reachback in support of analysis with collaborating military, national, and international partners via signal screening and processing tools resident in LABLINK. GSAL theater-level laboratories are located at NIOC Hawaii (Pacific SAL), and NIOC Ft Gordon, Georgia (Atlantic SAL). Forward-based screening and forwarding QuickLook/Nodes are located at Souda Bay, Crete (potential relocation within the European theater), NIOC Bahrain, and a future installation at Kadena, Japan. Other GSAL facilities are located at NIOC Yokosuka, Japan, and at the Naval Information Warfare Activity (NIWA).</p> <p>[P5 / GDX6D - System Integration and Installation of Hardware]: Fleet Information Operations Centers (FIOC): There are FIOCs co-located with National Security Agency (NSA) Cryptologic Centers supporting the geographical Satellite Communication Network (SATCOM). Each are charged with providing regionally focused Information Operation (IO) and Signal Intelligence (SIGINT) support to Fleet Commanders. FIOCs leverage NSA capabilities, analysis, and manpower in support of Fleet requirements. Funds are required for purchasing and maintaining life cycle support for command and control systems connected to SCI networks at the FIOCs. Funds are also provided to develop and maintain a common baseline of analytical intelligence software tools supporting FIOC capability areas as defined in the FIOC operational strategy (OPSTRAT).</p> <p>[P5 / System Integration & Installation of Hardware (FIOC)]: "GDX8D - NAVY ELECTRONIC INTELLIGENCE (ELINT): Procure SECAPs a technology insertion approach, not system approach to current system capabilities. SECAP will provide tactical commanders with enhanced Electronic Support capabilities allowing for increased search, detection and data collection in support of a variety of surface ship requirements. Procure Network Centric Electronic Warfare Support which facilitates a fused tactical Electronic Warfare Support picture which facilitates an automated two-way intelligence feed of organic and non-organic ELINT for analysis and fusion utilizing Generic Area Limitation Environment (GALE) 5.0 software inside SLQ-32B consoles. This technology will enable deployed Strike Groups and Shore nodes to receive and transmit all forms of ELINT simultaneously which can cue overhead and organic sensors and populate a Common Intelligence/Common Operation Picture (CIP/COP). "GDX6D - FLEET INFORMATION OPERATIONS CENTERS (FIOC): There are FIOCs co-located with National Security Agency (NSA) Cryptologic Centers located at Georgia, Hawaii, Maryland, Texas, Digby, United Kingdom and High Castle/CMASS each supporting the geographical Satellite Communication Network (SATCOM). Each are charged with providing regionally focused Information Operation (IO) and Signal Intelligence (SIGINT) support to Fleet Commanders. FIOCs respond to Fleet requests for IO and SIGINT personnel augmentation in theater, analytical requests, and planning in support of deliberate and crisis action planning. FIOCs leverage NSA capabilities, analysis, and manpower in support of Fleet requirements. Funds are required for purchasing and maintaining life cycle support for Global Command and Control Systems - Maritime (GCCS-M) connected to SCI networks at the FIOCs. Funds are also provided to develop and maintain a common baseline of analytical intelligence software tools supporting FIOC capability areas as defined in the FIOC operational strategy (OPSTRAT).</p>		

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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 02: Communications & Electronics Equip / BSA 16: Cryptologic Equipment	P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-5	1 / Cryptologic Communications Equip	P-5a, P-21		- / 49.052	- / 11.502	- / 11.433	- / 21.098	- / -	- / 21.098
P-40	Total Gross/Weapon System Cost			- / 49.052	- / 11.502	- / 11.433	- / 21.098	- / -	- / 21.098

*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:
 FY17 funds will continue to satisfy signals exploitation capability gaps as determined by the CCOP Signals of Interest (SOI) Integrated Product Team (IPT). At this time the recommendations for procurements that are best suited to address identified gaps may include: Digital Receiver Technology (DRT), Hostile forces Integrated Targeting Service (HITS), Maritime Toxic Pen (MTP), TURBULENTWAVE/TURBULENTWIND/TURBULENTSAIL, BLUESTREAM servers, RED FALCON/VULCAN, STINGRAY, MUDCAT, Toxic Fog, Radio Frequency Distribution Unit (RFDU), TEAPARTY/TEALEAF, and Generic Area Limitations Environment (GALE)-Lite. This line supports the procurement of STALLION hardware for CCOP team training.

Funding increase from FY16 to FY17 is for the procurement of DRTs for XP Eradication in order to maintain Information Assurance requirements.

FY17 funds will provide for the timely analysis of data derived from maritime mobile Information Warfare (IW) operations. GSAL support is conducted by Signals Analysis Laboratories (SAL) co-located with Fleet Information Operations Centers (FIOC) at theater-level analysis and processing centers and by QuickLook/Nodes forward-based at fleet concentration areas. The GSAL program office equips the SALs with advanced signals analysis capabilities in order to accomplish the high order analysis that is required to effectively address SAL processing and exploitation requirements in support of both maritime tactical and national strategic IW objectives. Additionally, SALs are equipped with specialized capabilities to support FIOC maritime Signal Descriptor File (SDF) requirements. Funding will be used for the procurement of upgrades (GSAL LABLINK data handling subsystem) to integrate new technology to accommodate the highly technical analysis requirements attendant with a highly diverse and constantly changing electromagnetic environment, while providing connectivity and global reachback in support of analysis with collaborating military, national, and international partners via signal screening and processing tools resident in LABLINK.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16	P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip	Item Number / Title [DODIC]: 1 / Cryptologic Communications Equip

ID Code (A=Service Ready, B=Not Service Ready) :	MDAP/MAIS Code:
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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)	49.052	11.502	11.433	21.098	-	21.098
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	49.052	11.502	11.433	21.098	-	21.098
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	49.052	11.502	11.433	21.098	-	21.098

(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 Thousands)	-	-	-	-	-	-

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
Hardware - 1V045 Access Systems & Subsystems Cost																		
Recurring Cost																		
1.1.1) CCOP Systems & Subsystems ^(†) (1)	249.811	164	40.969	235.500	41	9.656	235.561	40	9.422	236.428	79	18.678	-	-	-	236.428	79	18.678
<i>Subtotal: Recurring Cost</i>	-	-	40.969	-	-	9.656	-	-	9.422	-	-	18.678	-	-	-	-	-	18.678
<i>Subtotal: Hardware - 1V045 Access Systems & Subsystems Cost</i>	-	-	40.969	-	-	9.656	-	-	9.422	-	-	18.678	-	-	-	-	-	18.678
Hardware - GDX6D - Global Signal Analysis Equipment Cost																		
Recurring Cost																		
2.1.1) Global Signal Analysis Laboratory (GSAL) ^(†)	4,193.000	1	4.193	998.000	1	0.998	726.000	1	0.726	705.000	1	0.705	-	-	-	705.000	1	0.705
<i>Subtotal: Recurring Cost</i>	-	-	4.193	-	-	0.998	-	-	0.726	-	-	0.705	-	-	-	-	-	0.705
<i>Subtotal: Hardware - GDX6D - Global Signal Analysis Equipment Cost</i>	-	-	4.193	-	-	0.998	-	-	0.726	-	-	0.705	-	-	-	-	-	0.705
Hardware - GDX6D - System Integration and Installation of Hardware Cost																		
Recurring Cost																		
3.1.1) System Integration & Installation of Hardware (FIOC) ^(†)	450.000	4	1.800	428.000	1	0.428	728.000	1	0.728	711.000	1	0.711	-	-	-	711.000	1	0.711
<i>Subtotal: Recurring Cost</i>	-	-	1.800	-	-	0.428	-	-	0.728	-	-	0.711	-	-	-	-	-	0.711

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16						P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip						Item Number / Title [DODIC]: 1 / Cryptologic Communications Equip					
ID Code (A=Service Ready, B=Not Service Ready) :												MDAP/MAIS Code:					

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

Cost Elements	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$ K)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Hardware - GDX6D - System Integration and Installation of Hardware Cost</i>	-	-	1.800	-	-	0.428	-	-	0.728	-	-	0.711	-	-	-	-	-	0.711
Support - 1V555 Production Support Cost																		
4.1) Production Support	-	-	2.090	-	-	0.420	-	-	0.557	-	-	1.004	-	-	-	-	-	1.004
<i>Subtotal: Support - 1V555 Production Support Cost</i>	-	-	2.090	-	-	0.420	-	-	0.557	-	-	1.004	-	-	-	-	-	1.004
Gross/Weapon System Cost	-	-	49.052	-	-	11.502	-	-	11.433	-	-	21.098	-	-	-	-	-	21.098

(t) indicates the presence of a P-5a

Footnotes:

(1) Quantity and unit cost of CCOP systems and subsystems vary because procurements are in response to current Combatant Command fleet requirements as well as the Signals of Interest (SOI) and target threat list which is updated twice a year. CCOP system and subsystem unit costs range from \$.050M to \$.900M, with the exception of Maritime Toxic Pen (MTP) which is priced at \$2.150M per system. The unit cost listed above represents the average price per system. Funding increase from FY16 to FY17 is for the procurement of DRT's for XP Eradication in order to maintain Information Assurance requirements. Microsoft XP is no longer a supported operating system. Current versions of CORSAIR LITE utilize the XP operating system generating an immediate requirement to procure 31 replacement DRT1211c receivers for both operational systems for deployment and training systems for the Center for Information Dominance Learning centers (CID/LS) to train the CORSAIR LITE carry-on system.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16	P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip	Item Number / Title [DODIC]: 1 / Cryptologic Communications Equip
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Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
1.1.1) CCOP Systems & Subsystems ^(†)		2015 ⁽²⁾	VARIOUS ⁽³⁾ / VARIOUS	Various	SSC PAC/SSC LANT	Feb 2015	Jul 2015	41	235.500	N	Apr 2015	Oct 2014
1.1.1) CCOP Systems & Subsystems ^(†)		2016	VARIOUS ⁽³⁾ / VARIOUS	Various	SSC PAC/SSC LANT	Feb 2016	Jul 2016	40	235.561	N	Apr 2016	Oct 2015
1.1.1) CCOP Systems & Subsystems ^(†)		2017	VARIOUS ⁽³⁾ / VARIOUS	C / TBD	SSC PAC/SSC LANT	Feb 2017	Jul 2017	79	236.428	N	Apr 2017	Oct 2016
2.1.1) Global Signal Analysis Laboratory (GSAL)		2015	NAVAIR / Patuxent River	MIPR	SPAWAR San Diego	Jul 2015	Jul 2015	1	998.000	N	Nov 2015	
2.1.1) Global Signal Analysis Laboratory (GSAL)		2016	NAVAIR / Patuxent River	MIPR	SPAWAR San Diego	Apr 2016	Apr 2016	1	726.000	N	Nov 2016	
2.1.1) Global Signal Analysis Laboratory (GSAL)		2017	NAVAIR / Patuxent River	MIPR	SPAWAR San Diego	Apr 2017	Apr 2017	1	705.000	N	Nov 2017	
3.1.1) System Integration & Installation of Hardware (FIOC)		2015	SPAWAR / San Diego	Various	SPAWAR San Diego	Apr 2015	Jul 2015	1	428.000	N	May 2015	
3.1.1) System Integration & Installation of Hardware (FIOC)		2016	SPAWAR / San Diego	C / TBD	SPAWAR San Diego	Oct 2015	Oct 2015	1	728.000	N	Nov 2015	
3.1.1) System Integration & Installation of Hardware (FIOC)		2017	SPAWAR / San Diego	C / TBD	SPAWAR San Diego	Oct 2016	Oct 2016	1	711.000	N	Nov 2016	

^(†) indicates the presence of a P-21

Footnotes:

⁽²⁾ FY15 Vendors: Digital Receiver Technologies, BIT systems, TICOM, KAB

⁽³⁾ CCOP equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare/Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT). Due to a continually changing threat environment, detailed requirements are dynamic, contract award timelines and equipment procured varies each year by quantity and type.

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16 **P-1 Line Item Number / Title:** 3501 / Cryptologic Communications Equip **Item Number / Title [DODIC]:** 1 / Cryptologic Communications Equip

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
1.1.1) CCOP Systems & Subsystems ⁽¹⁾																															
Prior Years Deliveries: 164																															
1		2015	NAVY	41	-	41																									
1		2016	NAVY	40	-	40																									
1		2017	NAVY	79	-	79																									

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16	P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip	Item Number / Title [DODIC]: 1 / Cryptologic Communications Equip
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
1.1.1) CCOP Systems & Subsystems ⁽¹⁾																															
Prior Years Deliveries: 164																															
1		2015	NAVY	41	41	-																							-		
1		2016	NAVY	40	15	25	5	5	5	5	5																		-		
1		2017	NAVY	79	-	79					A	-	-	-	-	10	10	10	10	10	10	10	10	9					-		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 16				P-1 Line Item Number / Title: 3501 / Cryptologic Communications Equip				Item Number / Title [DODIC]: 1 / Cryptologic Communications Equip				
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	VARIOUS ⁽³⁾ - VARIOUS	1	40	90	-	4	5	9	-	1	5	6

"A" in the Delivery Schedule indicates the Contract Award Date.

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

Footnotes:

⁽³⁾ CCOP equipment is procured according to the overall requirements detailed in the Shipboard Information Warfare/Cryptologic System Operational Requirements Document and specific execution year fleet requirements as defined by the Signals Of Interest (SOI) Integrated Product Team (IPT). Due to a continually changing threat environment, detailed requirements are dynamic, contract award timelines and equipment procured varies each year by quantity and type.

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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 02: Communications & Electronics Equip / BSA 17: Other Electronic Support	P-1 Line Item Number / Title: 3620 / Coast Guard Equipment
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ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
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Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A
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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 (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	99.490	2.967	2.529	32.291	-	32.291	16.217	17.077	20.801	43.496	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	99.490	2.967	2.529	32.291	-	32.291	16.217	17.077	20.801	43.496	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	99.490	2.967	2.529	32.291	-	32.291	16.217	17.077	20.801	43.496	Continuing	Continuing

(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)

Initial Spares (<i>\$ in Millions</i>)	-	0.176	-	-	-	-	-	-	-	-	-	0.176
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The growth in the FY 2017 funding request is attributable to increases by the Department to add Navy Type/Navy Owned (NT/NO) combat systems onboard the new construction USCG OPCs.

The Coast Guard Equipment line funds the Coast Guard Combat System Suite for United States Coast Guard (USCG) cutters under the Coast Guard Surface Asset Acquisition Program. Under inter-service agreement (delineated in OPNAVINST 4000.79B), DON plans, programs, and budgets for specific Navy military equipment, systems and logistic support requirements for Coast Guard units to ensure the Coast Guard is prepared to execute naval warfare tasks in consonance with US Navy units. Ship construction and installation costs are funded under the Department of Homeland Security appropriation.

The Combat Systems and Weapons Suite will be aligned with future naval ship building programs to support commonality among the two Service's systems and meet National Fleet objectives.

The Combat System Suite must compliment and integrate with Navy Combat Systems. The suite is an appropriate balance of equipment to ensure the Coast Guard is prepared to accomplish the assigned Naval Warfare tasks in concert with US Navy units. The Surface Asset Acquisition Program Combat Suites include the following:

[P40A / CG001 - SPQ-9B RADAR]: Provides the AN/SPQ-9B radar for the Maritime Security Cutter, Large (WMSL) Class, aka the National Security Cutter, to track surface targets and low fliers in support of potential gun engagements.

[P40A / IFF AIMS]: Provides the AN/UPX-29A Identification Friend or Foe (IFF) System for the WMSL Class and the Offshore Patrol Cutter (OPC) Class, aka the Maritime Security Cutter, Medium (WMSM). The AN/APX-123 Transponder is procured for the Fast Response Cutter (FRC) aka Patrol Coastal Cutter (WPC).

[P40A / CG003 DECOYS MK 53]: Provides the MK 53 Mod 6 Decoy Launching System (DLS) for the WMSL and OPC Classes to provide soft-kill capability.

[P40A / CG004 SLQ-32]: Provides the AN/SLQ-32 Electronic Warfare System and the Battle Force Electronic Warfare Trainer (BEWT) for the WMSL Class to perform Electronic Support Measures to support soft-kill measures.

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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 02: Communications & Electronics Equip / BSA 17: Other Electronic Support		P-1 Line Item Number / Title: 3620 / Coast Guard 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	
<p>[P40A / CG005 MK 46/MK 20 OPTICAL SIGHT]: Provides the MK 46 Mod 1 Optical Sighting System (OSS) for WMSL 750-753. The MK 20 Mod 0 Electro-Optical Sighting System (EOSS) is procured for WMSL 754-757 and the OPC. These sighting systems are components of the MK48 Gun Weapon System (GWS) and provide fire control optical daytime and thermal imaging (infrared) sensor, and laser range finding to support engagements of hostile surface and air targets.</p> <p>[P40A / CG006 COMBAT SYSTEM INTEGRATION]: Ensures successful integration and system interoperability of Navy type equipment that affects the Combat System of US Coast Guard cutters.</p> <p>FY2017 Combat System Control and Display integration (both software & hardware) is required to support combat system integration of the Technical Insertion (TI)-16 Common Display System for the Multi-Mode Radar, IFF and to provide data to the AN/SLQ-32(V)6 and the MK48 Gun Weapon System for target engagement on the OPC.</p> <p>[P40A / CG007 MULTI-MODE RADAR]: Provides the Multi-Mode Radar (MMR) to perform surface search, air search, and air traffic advisory control object detection and tracking functions for the OPC.</p> <p>FY2017 MMR integration includes software upgrade to correlate radar contacts, radar video tracks and IFF information. Also includes the MMR hardware integration of the IFF antenna onto the MMR antenna (drawing updates and technical publications).</p>		

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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 02: Communications & Electronics Equip /
 BSA 17: Other Electronic Support **P-1 Line Item Number / Title:**
 3620 / Coast Guard 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				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)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
P-40a	Coast Guard Equipment	P-5a, P-21		- / 99.490	- / 2.967	- / 2.529	- / 32.291	- / -	- / 32.291
P-40	Total Gross/Weapon System Cost			- / 99.490	- / 2.967	- / 2.529	- / 32.291	- / -	- / 32.291

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

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

Justification:

FY 2017 funding request reduced \$0.562 million to account for the availability of prior year balances.

The growth in the FY 2017 funding request is attributable to increases by the Department to add Navy Type/Navy Owned (NT/NO) combat systems onboard the new construction USCG OPCs.

Funds procure NT/NO combat systems, support equipment, Integrated Logistics Support (ILS), certification, test and production support for USCG WMSLs, FRCs and OPCs being constructed under the Coast Guard Surface Asset Acquisition Program. These efforts are ongoing. FY2017 funds provide AN/SPQ-9B ILS support for WMSL 756; procure IFF AN/APX-123(V) equipment, ILS and certification support for FRCs 1131-1134; procure IFF UPX-29A equipment, INCO spares, and ILS support for OPC 1; support IFF ILS and certification for WMSLs 755-757; procure MK53 MOD 6 DLS for OPC 1; procure the MK20 Mod 2 EOSS for OPC 1; procure the Multi-mode Radar for the OPC 1; provide MMR hardware/software integration for the OPC; provide combat system integration for WMSLs 755-757, FRCs 1116-1119, and OPC 1; and provide combat system integration of the Technical Insertion (TI)-16 Common Display System for the OPC.

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17 **P-1 Line Item Number / Title:** 3620 / Coast Guard Equipment **Aggregated Items Title:** Coast Guard Equipment

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
1) CG001 - SPQ-9B RADAR																				
1.1) SPQ-9B ILS/TEST SUPPORT ⁽¹⁾	A		-	-	5.613	-	-	-	-	-	-	-	-	0.190	-	-	-	-	-	0.190
Subtotal: 1) CG001 - SPQ-9B RADAR			-	-	5.613	-	-	-	-	-	-	-	-	0.190	-	-	-	-	-	0.190
2) IFF AIMS																				
2.1) IFF AIMS CERTIFICATION WPC	A		-	-	0.320	-	-	0.120	-	-	0.122	-	-	0.125	-	-	-	-	-	0.125
2.2) IFF AIMS ILS SUPPORT WPC	A		-	-	0.976	-	-	0.065	-	-	0.210	-	-	0.214	-	-	-	-	-	0.214
2.3) IFF AIMS EQUIPMENT WPC ^{(2)(†)}	A		112,416.67	24	2.698	125,000.00	2	0.250	128,000.00	3	0.384	103,250.00	3	0.310	-	-	-	103,250.00	3	0.310
2.4) IFF EQUIPMENT/INCO SPARES WMSM ^{(3)(†)}	A		-	-	-	-	-	-	-	-	-	110,000.00	1	0.110	-	-	-	110,000.00	1	0.110
2.5) IFF UPX-29A WMSM ^(†)	A		-	-	-	-	-	-	-	-	-	912,000.00	1	0.912	-	-	-	912,000.00	1	0.912
2.6) IFF ILS SUPPORT WMSM	A		-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	-	-	-	0.225
2.7) IFF AIMS WMSL	A		4,435K	2	8.870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.8) IFF AIMS UPX-29 LLT WMSL	A		259,000.00	3	0.777	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.9) IFF AIMS MODIFICATION KITS	A		81,250.00	4	0.325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.10) IFF AIMS SUPPORT EQUIPMENT WMSL ^(†)	A		80,000.00	6	0.480	103,000.00	1	0.103	-	-	-	96,000.00	1	0.096	-	-	-	96,000.00	1	0.096
2.11) IFF AIMS PRODUCTION SUPPORT WMSL	A		-	-	0.534	-	-	0.077	-	-	0.078	-	-	0.068	-	-	-	-	-	0.068
2.12) IFF AIMS ILS/TEST SUPPORT WMSL	A		-	-	0.751	-	-	0.092	-	-	0.045	-	-	0.046	-	-	-	-	-	0.046
2.13) IFF AIMS CERTIFICATION WMSL	A		-	-	0.311	-	-	0.073	-	-	0.076	-	-	0.075	-	-	-	-	-	0.075
Subtotal: 2) IFF AIMS			-	-	16.042	-	-	0.780	-	-	0.915	-	-	2.181	-	-	-	-	-	2.181
3) CG003 DECOYS MK 53																				
3.1) MK53 MOD 6 DLS WMSM ^(†)	A		-	-	-	-	-	-	-	-	-	1,208K	1	1.208	-	-	-	1,208K	1	1.208

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy																Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17						P-1 Line Item Number / Title: 3620 / Coast Guard Equipment						Aggregated Items Title: Coast Guard Equipment								
Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
3.2) MK53 ILS/TEST SUPPORT	A		-	-	3.536	-	-	0.169	-	-	0.160	-	-	0.555	-	-	-	-	-	0.555
Subtotal: 3) CG003 DECOYS MK 53			-	-	3.536	-	-	0.169	-	-	0.160	-	-	1.763	-	-	-	-	-	1.763
4) CG004 SLQ-32																				
4.1) BEWT WMSL (4)	A		933,000.00	1	0.933	-	-	0.084	-	-	0.131	-	-	0.022	-	-	-	-	-	0.022
4.2) SLQ-32 ELECTRONIC WARFARE SYSTEM	A		14,090K	2	28.180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3) SLQ-32 REFURBISHMENT	A		2,310K	3	6.931	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4) SLQ-32 SUPPORT EQUIPMENT	A		159,000.00	1	0.159	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.5) SLQ-32 PRODUCTION SUPPORT WMSL (5)	A		-	-	1.967	-	-	0.063	-	-	0.309	-	-	0.240	-	-	-	-	-	0.240
4.6) SLQ-32 ILS/TEST SUPPORT	A		-	-	1.888	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.7) SLQ-32 CERTIFICATION	A		-	-	0.338	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) CG004 SLQ-32			-	-	40.396	-	-	0.147	-	-	0.440	-	-	0.262	-	-	-	-	-	0.262
5) CG005 MK 46/MK 20 OPTICAL SIGHT																				
5.1) EOSS SYSTEM WMSM(1)	A		-	-	-	-	-	-	-	-	-	1,690K	1	1.690	-	-	-	1,690K	1	1.690
5.2) ILS/TEST SUPPORT WMSM	A		-	-	-	-	-	-	-	-	-	-	-	0.225	-	-	-	-	-	0.225
5.3) MODIFICATION KITS WMSL	A		-	-	0.297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.4) MK 46/MK 20 WMSL	A		14,525K	1	14.525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.5) DATA WMSL	A		-	-	0.286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6) SOFTWARE WMSL	A		-	-	2.170	-	-	0.232	-	-	-	-	-	-	-	-	-	-	-	-
5.7) PROGRAM SUPPORT WMSL	A		-	-	1.589	-	-	0.043	-	-	-	-	-	-	-	-	-	-	-	-
5.8) ORDALT WMSL	A		-	-	0.770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.9) ILS/TEST SPT WMSL	A		-	-	2.023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 5) CG005 MK 46/MK 20 OPTICAL SIGHT			-	-	21.660	-	-	0.275	-	-	-	-	-	1.915	-	-	-	-	-	1.915
6) CG006 COMBAT SYSTEM INTEGRATION																				
6.1) CSI	A		-	-	12.243	-	-	1.596	-	-	1.014	-	-	1.031	-	-	-	-	-	1.031

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Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2017 Navy													Date: February 2016						
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17						P-1 Line Item Number / Title: 3620 / Coast Guard Equipment						Aggregated Items Title: Coast Guard Equipment							

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2015			FY 2016			FY 2017 Base			FY 2017 OCO			FY 2017 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
6.2) COMBAT SYSTEM CONTROL & DISPLAY (6)	A		-	-	-	-	-	-	-	-	-	-	8.345	-	-	-	-	-	8.345	
Subtotal: 6) CG006 COMBAT SYSTEM INTEGRATION			-	-	12.243	-	-	1.596	-	-	1.014	-	-	9.376	-	-	-	-	9.376	
7) CG007 MULTI-MODE RADAR																				
7.1) MMR SYSTEM WMSM ^(†)	A		-	-	-	-	-	-	-	-	8,518K	1	8.518	-	-	-	8,518K	1	8.518	
7.2) MMR INTEGRATION (7)	A		-	-	-	-	-	-	-	-	-	-	7.313	-	-	-	-	-	7.313	
7.3) ILS/TEST SUPPORT WMSM	A		-	-	-	-	-	-	-	-	-	-	0.773	-	-	-	-	-	0.773	
Subtotal: 7) CG007 MULTI-MODE RADAR			-	-	0.000	-	-	-	-	-	-	-	16.604	-	-	-	-	-	16.604	
Total			-	-	99.490	-	-	2.967	-	-	2.529	-	-	32.291	-	-	-	-	32.291	

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

(†) indicates the presence of a P-5a

Footnotes:

(1) FY2017 SPQ-9B ILS/Test Support funds provide delivery/installation/check-out support for the WMSL 756 AN/SPQ-9B radar. Includes conducting the WMSL 756 radar installation checkout test procedures and supporting associated ships Builder and Acceptance Trials.

(2) IFF Equipment suite for the WPC consists of MK XII equipment, Radar Control Transmitter (RCU), Radar Receiver-Transmitter shipping and installation fixtures which have various unit costs. The IFF AIMS Equipment unit price is an average unit cost for the various components being procured that year.

(3) IFF Equipment suite for the OPC consists of the RT-1912C, C-12720, AS-177B, AN/APX-123 KIT, AN/UPX-41(C), AN/USM-719, KIV-78 and INCO spares with various unit costs.

(4) FY2016 BEWT funds support engineering efforts associated with WMSL 756 system installation, inspection, and acceptance. FY2017 BEWT funds support the WMSL 757.

(5) FY2016 SLQ-32 production support funds engineering efforts associated with the WMSL 756 and WMSL 757 AN/SLQ-32 system installation, inspection, and acceptance. FY2017 funds support the WMSL 757.

(6) The Combat System Control and Display integration effort (both software & hardware) is required to support integration of the Technical Insertion (TI)-16 Common Display System for the Multi-Mode Radar, IFF and to provide data to the MK48 Gun Weapon System for target engagement.

(7) The Multi-Mode Radar (MMR) integration efforts include the software upgrade to correlate radar video tracks and IFF information and the detail design of the IFF antenna onto the MMR antenna hardware integration to include drawing updates and technical publications.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17	P-1 Line Item Number / Title: 3620 / Coast Guard Equipment	Aggregated Items: Coast Guard Equipment
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Item Number / Title [DODIC]	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
2) IFF AIMS												
2.3) IFF AIMS EQUIPMENT WPC (2)		2015	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2015	Jul 2016	2	125,000.00	Y		Nov 2007
2.3) IFF AIMS EQUIPMENT WPC (2)		2016	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2016	Jul 2017	3	128,000.00	Y		Nov 2007
2.3) IFF AIMS EQUIPMENT WPC (2)		2017	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2017	Jul 2018	3	103,250.00	Y		Dec 2015
2.4) IFF EQUIPMENT/INCO SPARES WMSM ⁽³⁾		2017	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2017	Jul 2018	1	110,000.00	Y		Dec 2015
2.5) IFF UPX-29A WMSM		2017	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2017	Jul 2018	1	912,000.00	Y		Dec 2015
2.10) IFF AIMS SUPPORT EQUIPMENT WMSL		2015	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Mar 2015	Sep 2016	1	103,000.00	Y		Nov 2007
2.10) IFF AIMS SUPPORT EQUIPMENT WMSL		2017	NAVAIR NAWC/AD / ST. INIGOES, MD	WR	NAVAIR	Jan 2017	Jul 2018	1	96,000.00	Y		Dec 2015
3) CG003 DECOYS MK 53												
3.1) MK53 MOD 6 DLS WMSM		2017	TBD / TBD	C / FP	NAVSEA	Mar 2017	Jul 2018	1	1,208K	Y		Jan 2016
5) CG005 MK 46/MK 20 OPTICAL SIGHT												
5.1) EOSS SYSTEM WMSM		2017	L3 KEO / NORTHAMPTON, MA	SS / FP	NAVSEA	Mar 2017	Sep 2018	1	1,690K	Y		Jan 2016
7) CG007 MULTI-MODE RADAR												
7.1) MMR SYSTEM WMSM ^(†)		2017	TBD / TBD	C / FP	NAVSEA	Apr 2017	Aug 2018	1	8,518K	N	Jan 2016	Jan 2016

^(†) indicates the presence of a P-21

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17 **P-1 Line Item Number / Title:** 3620 / Coast Guard Equipment **Aggregated Items:** Coast Guard Equipment

Items <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
7) CG007 MULTI-MODE RADAR																															
7.1) MMR SYSTEM WMSM																															
13		2017	NAVY	1	-	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17 **P-1 Line Item Number / Title:** 3620 / Coast Guard Equipment **Aggregated Items:** Coast Guard Equipment

Items <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 6	BAL D U E A S O F 1 O C T	Calendar Year 2017												Calendar Year 2018												
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G		S E P
7) CG007 MULTI-MODE RADAR																															
7.1) MMR SYSTEM WMSM																															
13		2017	NAVY	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 N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

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Exhibit P-21, Production Schedule: PB 2017 Navy									Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 02 / 17					P-1 Line Item Number / Title: 3620 / Coast Guard Equipment				Aggregated Items: Coast Guard Equipment			
MFR Ref #	Manufacturer Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2017	1-8-5 For 2017	MAX For 2017	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Manufacturing PLT	Total After Oct 1
1	TBD - TBD	1	1	1	12	3	16	19	6	3	16	19

"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).