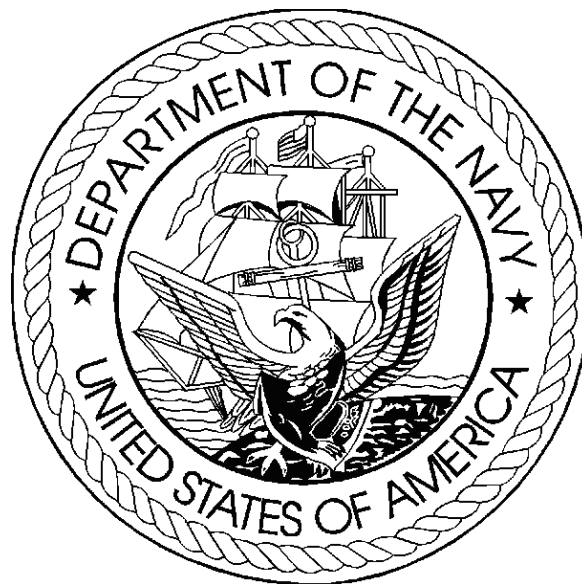


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**Department of Defense
Fiscal Year (FY) 2017 President's Budget Submission**

February 2016



Navy

Justification Book Volume 4 of 5

Other Procurement, Navy

BA 4

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The estimated cost for this report for the Department of the Navy (DON) is \$6,502.

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
 Exhibit P-1 FY 2017 President's Budget
 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
 FY 2017 President's Budget
 Exhibit P-1 FY 2017 President's Budget
 Total Obligational Authority
 (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
 FY 2017 President's Budget
 Exhibit P-1 FY 2017 President's Budget
 Total Obligational Authority
 (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

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

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

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

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

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

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
 FY 2017 President's Budget
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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 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

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

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

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	
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
 FY 2017 President's Budget
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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 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
 FY 2017 President's Budget
 Exhibit P-1 FY 2017 President's Budget
 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		
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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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	
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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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 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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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 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 04: Ordnance Support Equipment / BSA 2: Ship Gun System Equipment	P-1 Line Item Number / Title: 5111 / Ship Gun Systems 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
---	--	-------------------------------------

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	5.572	5.300	6.191	-	6.191	5.258	5.377	5.496	5.615	5.059	43.868
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	5.572	5.300	6.191	-	6.191	5.258	5.377	5.496	5.615	5.059	43.868
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	5.572	5.300	6.191	-	6.191	5.258	5.377	5.496	5.615	5.059	43.868

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

Initial Spares (<i>\$ in Millions</i>)	-	0.034	0.007	0.007	-	0.007	-	-	-	-	-	0.048
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Ship gun systems equipment provides funds for the procurement of equipment, material and Ordnance Alterations to improve combat effectiveness and logistic supportability for gun and mission planning systems, and ancillary support equipment.

P40A - 1/ The Naval Fires Control System is an automated mission planning and coordination system for the Naval Surface Fire Support (NSFS) System. It automates shipboard land attack battle management duties to be interoperable and consistent with joint C4ISR systems. The system significantly improves the Navy's ability to support forces ashore. These improvements provide enhanced capabilities and reduce total ownership costs by improving reliability and supportability of in-service systems. This system also reduces manning requirements for NSFS missions.

[P40A - 2 / NV039 Night Vision Devices]: Procures new Night Vision Devices (NVD) for ships and shore sites. Provides replacement of NVD and NVD Test Equipment.

[P40A - 2 / NV051 Optical Sight Systems Production Improvement]: Procures various Product Improvements for MK46 OSS/MK20 Electro-Optical Sight System (EOSS) on DDG 51 and CG 47 Class ships. The OSS is an integral element of the MK 34 Gun Weapon System. These improvements provide enhanced force protection capabilities, improve availability to address increase in Fleet underway operations, and reduce total ownership costs by improved reliability and supportability of in-service equipment systems. System and component improvements include: Mod 0 Technical Refresh, upgrade of Daylight Imaging Sensor Field of View, system power supplies, Mod 0 console / monitor upgrade, system obsolescence replacement and component level product improvements.

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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 04: Ordnance Support Equipment / BSA 2: Ship Gun System Equipment

P-1 Line Item Number / Title:
5111 / Ship Gun Systems 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	Naval Fires Control Sys	P-5a		- / 0.000	- / 0.979	- / 0.450	- / 0.715	- / -	- / 0.715
P-40a	Gun Fire Control Equipment			- / 0.000	- / 4.593	- / 4.850	- / 5.476	- / -	- / 5.476
P-40	Total Gross/Weapon System Cost			- / 0.000	- / 5.572	- / 5.300	- / 6.191	- / -	- / 6.191

*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: Before FY15, the programs were previously reported under budget line items (5209 and 5112).

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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 / 04 / 2 **P-1 Line Item Number / Title:** 5111 / Ship Gun Systems Equipment **Aggregated Items Title:** Naval Fires Control Sys

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) INSTALLATION																				
2.1) FC0002 Installation of NFCS Equipment ^(†)	A		-	-	-	245,000.00	1	0.245	-	-	-	-	-	-	-	-	-	-	-	-
2.2) FC010 Product Improvement/ORDALT	A		-	-	-	-	-	0.392	-	-	0.238	-	-	0.336	-	-	-	-	-	0.336
2.3) FC011 Installation of ORDALT	A		-	-	-	-	-	0.127	-	-	0.086	-	-	0.164	-	-	-	-	-	0.164
2.4) FC830 Production Engineering Support (NFCS)	A		-	-	-	-	-	0.215	-	-	0.126	-	-	0.215	-	-	-	-	-	0.215
Subtotal: 2) INSTALLATION			-	-	0.000	-	-	0.979	-	-	0.450	-	-	0.715	-	-	-	-	-	0.715
Total			-	-	0.000	-	-	0.979	-	-	0.450	-	-	0.715	-	-	-	-	-	0.715

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
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 2	P-1 Line Item Number / Title: 5111 / Ship Gun Systems Equipment	Aggregated Items: Naval Fires Control Sys
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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) INSTALLATION												
2.1) FC0002 Installation of NFCS Equipment		2015	VARIOUS / VARIOUS	WR	NAVSEA	Apr 2015	Jul 2015	1	245,000.00	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 / 04 / 2 **P-1 Line Item Number / Title:** 5111 / Ship Gun Systems Equipment **Aggregated Items Title:** Gun Fire Control Equipment ⁽¹⁾

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) Equipment																				
1.1) NV039 Night Vision Devices	A		-	-	-	-	-	2.285	-	-	2.319	-	-	2.166	-	-	-	-	-	2.166
1.2) NV051 Optical Sight Systems Production Improvement	A		-	-	-	-	-	2.308	-	-	2.531	-	-	3.310	-	-	-	-	-	3.310
Subtotal: 1) Equipment			-	-	0.000	-	-	4.593	-	-	4.850	-	-	5.476	-	-	-	-	-	5.476
Total			-	-	0.000	-	-	4.593	-	-	4.850	-	-	5.476	-	-	-	-	-	5.476

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

Footnotes:

⁽¹⁾ This program provides for the procurement of equipment, materials and Ordnance Alterations to improve combat effectiveness and maintain logistic supportability of Gun Fire Control Equipment, Optical Sight Systems (OSS) and Night Vision 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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment

P-1 Line Item Number / Title:
5231 / Ship Missile Support Equipment

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

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

Resource Summary	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	To Complete	Total
Procurement Quantity (<i>Units in Each</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (<i>\$ in Millions</i>)	0.000	143.570	276.503	320.446	-	320.446	302.644	255.402	247.983	269.126	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	143.570	276.503	320.446	-	320.446	302.644	255.402	247.983	269.126	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	143.570	276.503	320.446	-	320.446	302.644	255.402	247.983	269.126	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>)	-	5.104	7.453	8.192	-	8.192	2.950	3.018	2.067	2.874	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 \$10.000 million to account for the availability of prior years execution balance.

Ship Missile Support Equipment provides procurement and installation support to address fleet requirements for AEGIS Weapons System, Ships Self Defense System (SSDS), Vertical Launch System (VLS), NATO Seasparrow, Rolling Air Missile System (RAMS) Guided Missile Launcher System (GMLS), and Anti-Ship Missile Decoy System NULKA.

FY16 to FY17 Increases are being driven by the following:

- (1). AEGIS ship Procurements effort to address SPY Refurbishments efforts required to support AEGIS BL 5.3.X upgrades schedule to field in FY18.
- (2). Anti-Ship Decoy Missile increase to support planning procurements and installation effort to support Fleet requirements.

[P40A / NATO SEASPARROW]: The NATO SEASPARROW Surface Missile System (NSSMS) is a shipboard Self-Defense Missile System. In addition to the standard mission of Anti-Air and Anti-Surface Defense (AAW, ASUW), NSSMS is designed to protect ship and crew from a variety of inbound threats, including Anti-Ship Cruise Missiles (ASCM), Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC), Low Velocity Air Threats (LVAT), and a wide range of asymmetrical threats (e.g. Unmanned Aerial and Surface vehicles, small Rigid Hull Inflatable Boats, etc).

Primary operations consist of acquiring targets either manually using radar search or Electro Optic/Infrared capability, or automatically via external or internal designations, generation of fire-control quality track data for engage ability determination, launcher control and missile initialization, queuing of other weapons (e.g. Rolling Airframe Missile) via the Ship Self Defense System (SSDS) or AN/SWY 3/5 Combat System, RIM-7H/M/P SEASPARROW missile and RIM-162D Evolved SEASPARROW Missile (ESSM) firing, target illumination for Missile Guidance and Visual Kill/Survive and Battle Damage Assessments.

NSSMS provides manual or fully automatic operation with provisions for operator intervention or override from the time of target designation to missile away. The legacy NSSMS configuration consists of Fire Control and Launcher Systems comprised of 2-4 Directors, a distributed computing network, Transmitter Group, 3-5 Operating Consoles, and 1-2 Eight-Cell missile Launchers which employ the surface launch variant of the Sparrow and ESSM. The RIM-7 and RIM-162 missiles use semi-active guidance with target illumination provided by the shipboard MK 9/95 fire control systems. NSSMS MK 57 Mods 12 and higher (ESSM capable) are integrated with the SSDS and become part of the SSDS MK 2 Combat System on CVN 68, LHA 6 and LHD 7-8 class ships. Starting with the Ford Class (CVN 78), the Guided Missile Launching System (GMLS) is segmented from the MK 57 and interfaces directly to the SSDS Combat System; the CVN 78 effort is referred to as NSSMS Objective Configuration OC Phase 1 (OCP 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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment		P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>NSSMS Objective Configuration Phase 2 (OCP 2) consists of the segmenting the MK 9 Track Illuminator System (TIS) to interface directly to with SSDS Combat System, as well as eliminating all MK 57 watch stations. This watch station elimination dramatically reduces system life cycle costs for hardware, software, manning, training and maintenance and obsolescence requirements, also allowing the Navy to divest of RIM-7 and associated infrastructure. Recent SSDS FRB activity has also created an incentive to consider MK 9 performance improvements opportunities.</p> <p>MK 29 modernization efforts address a variety of issues with the legacy MK 132 above deck launcher equipment, including achieving the desired Grade A shock qualification, solving missile loading/loader beam safety issues, missile environmental issues and future ESSM compatibility.</p> <p>The NSSMS is a NATO Cooperative Project with 12 participating Governments; Australia, Belgium, Canada, Denmark, Germany, Greece, Norway, The Netherlands, Portugal, Spain, Turkey and the United States. The NSSMS and associated systems of the Cooperative Project were developed, produced and are supported under Department of Defense (DoD) International Memorandums of Understanding (MOU).</p> <p>Funding provides for (1) equipment modernization, (2) NATO SEASPARROW Objective Configuration (OC) program consisting of segmenting and automating MK 9 Track Illuminator System interfacing directly to the SSDS Combat System, and (3) Stalker Long Range Electro-Optic Sensor System.</p> <p>The MK 57 NSSMS continues to be evolved to provide credible ship self defense. These equipment modernization upgrades will result in the ability of the MK 57 System to support future mission requirements. NSSMS MK 57 Mods 12 and higher (ESSM capable) are integrated with the SSDS and become part of the SSDS MK 2 Combat System.</p> <p>The NATO SEASPARROW OC program consists of segmenting and automating the MK 9 Track Illuminator System (TIS) interfacing directly to the SSDS Combat System, eliminating all MK 57 watch stations, reducing system hardware, providing annual cost avoidance/savings, avoiding non-recurring engineering associated with integrating with CDS/CPS and allowing the Navy to divest of RIM-7 and associated infrastructure. Recent SSDS FRB activity has also created an incentive to consider MK 9 performance improvements opportunities. MK 132 Modernization (above deck launcher portion of MK 29 GMLS) allows for the upgrades necessary to address a variety of issues with this legacy equipment, including Grade A shock deficiencies with the current design when employed with ESSM, missile loading issues, missile environmental issues and future ESSM capability. The FY13 funding allocation on the Solid State Transmitter (SSTx) funding line is earmarked to support MK 9 improvements/modernization being driven by the FY12 SSDS combat system wholeness FRB/FLCIP initiate. The funding will be used to procure 1 set of MK 9 improvements/modernization related qualification hardware and associated engineering efforts. In contrast, the SSTx funding shown for FY14 and out will be used to procure production SSTx units.</p> <p>Stalker Long Range Electro-Optic Sensor System is a modular, portable and form/fit replacement for the MK 6 LLLTV mounted on NATO radar director (stabilized platform) providing 360 degree coverage satisfying ROE. It is able to detect, classify, ID, & assist in intent determination supporting "24/7" NAV, INTEL & AT/FP in addition to SUW, AAW and ASMD. Stalkers will be upgraded with the addition of Active/Passive Dual Imaging Sensor (AP/DIS IR). This improvement to Stalker will improve environmental performance via active/passive Short Wave IR. The Stalker system will further improve maritime target identification with increased range and resolution at night and through haze penetration/clutter reduction. This effort is in response to the NAVCENT Counter Swarm Urgent Operational Need (UON) to combat Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC).</p> <p>[P40A - 2 / RAM GMLS]: Rolling Airframe Missile (RAM) - MK 49 Guided Missile Launching System (GMLS): RAM is a cooperative program with the Federal Republic of Germany, produced under a series of production MOUs/MOAs (the latest was signed on 19 March 2013) executed between the U.S. and the Federal Republic of Germany.</p> <p>The MK-31 Guided Missile Weapon System (GMWS) is a lightweight, quick-reaction, high firepower missile system designed to provide anti-ship missile defense. The system is comprised of a MK-44 Guided Missile Round Pack (GMRP) and the MK 49 GMLS, which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms ranging from large USN aircraft carriers to Littoral Combat Ship (LCS). This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control illumination dependence.</p> <p>Funding profile directly supports final installations and associated efforts of RAM Mod 3 upgrades on LSD class ships in accordance with ships installation/availability schedule. Installation funding includes DSA planning and actual installation costs. Without this upgrade the Ship Self Defense System (SSDS) on these ships will only be able to fire RAM in manual mode. Funding also supports the procurement and installation of Tech Refresh/Safety/IA ORDALTS which are required to field RAM BLK 2+ capabilities for increased performance improvements bringing amplified fire power to the fleet..</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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment		P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A - 3 / Ship Self Defense System]: The Ship Self Defense System (SSDS) is the core combat system control element for the Quick Reaction Combat Capability (QRCC) in aircraft carriers and amphibious assault ships to defend against Anti-Ship Cruise Missiles (ASCM). SSDS integrates a diverse set of fire control loop sensors and weapons, and C4I systems for each ship class (CVN68/78, LHA6, LHD1, LPD17, and LSD41/49 ship classes). SSDS MK2 provides the capabilities for integrated air and missile defense, multi-warfare situational awareness, combat direction, and joint interoperability via the Cooperative Engagement Capability (CEC) and Tactical Digital Information Link (TADIL)-J (Link 16). SSDS MK2 is being fielded with the new construction carriers (CVN78 class) and amphibious ships (LHA6, LPD17 classes). SSDS MK2 is replacing the Advanced Combat Direction System (ACDS) in the LHD1 class, and SSDS MK1 in the LSD 41/49 class, as fleet modernization initiatives.</p> <p>SSDS MK2 integrates new combat system warfighting capabilities and improvements on phased basis via Advanced Capability Builds (ACB), Technology Insertion (TI), the Fire Control Loop Improvement Project (FCLIP), Far-Term Interoperability Improvement Project (FTIIP), and Task Force Cyber Awakening (TFCA) Boundary Defense Capability. New hardware Technology Insertion baselines are required every four years to refresh the Commercial-Off-The-Shelf (COTS) assemblies to sustain system production and to support the incorporation of new ACB/war-fighting capabilities. Each individual ship is planned for a Technology Insertion upgrade on an eight to ten year interval to replace obsolescent COTS hardware and support the fielding of the capabilities.</p> <p>SHIP SELF DEFENSE SYSTEM (SSDS) MK 1 provides ship self defense capabilities against Anti-Ship Cruise Missiles (ASCM) for LSD 41/49 class ships. It integrates several existing stand-alone sensor and Anti-Air Warfare weapons systems to provide an automated detect-to-engage capability against low flying, high speed ASCMs with low radar cross sections in the littoral environment. System design emphasizes physically distributed non-developmental items, commercial standards and computer program reuse in an open system architecture computer network. It includes a command table that uses components of the Navy's ANUYQ-70 standard display for human-system interface, commercially available local area network access units and circuit cards, and commercially available fiber optic cabling. SSDS MK 1 requires a COTS obsolescence technology refresh and transitioned to an SSDS MK2 Open Architecture Computing Environment (OACE) beginning with FY10 procurement for shore sites and lead ship installation in the LSD 50 in FY14.</p> <p>SHIP SELF DEFENSE SYSTEM (SSDS) MK 2 provides Advance Combat Direction System (ACDS) functionality and SSDS MK1 capabilities with additional weapon and sensor elements. It is integrated with Cooperative Engagement Capability (CEC) and tactical data links to provide joint interoperability for Aircraft Carriers and Amphibious Ships. It provides enhanced capabilities for Force Protection against air, surface, and subsurface threats using both own-ship and remote data in support of the Anti Air Warfare (AAW) Capstone Requirements. SSDS MK2 increases operational capabilities, improves combat readiness and Strike Group and Expeditionary Strike Group interoperability. SSDS MK 2 equips back-fit LHDs and CV(N)s with an upgraded Combat System Display, Automatic Status Board (ASTABS), Remote ASTAB Controllers, peripheral control stations and Advanced Sensor Distribution System (ASDS), as well as, the SSDS MK 2 computing equipment. Prior year procurement of SSDS MK 2 equipment included shore-based SSDS MK 2 equipment and full combat system suites for the Ship Combat System Center (SCSC), Wallops Island, Virginia; maintenance and operator training equipment at the Center for Surface Combat Systems (CSCS), Dam Neck, Virginia; and an equipment suite for the Self Defense Test Ship (SDTS), the SSDS MK2 System Integration Lab (SIL), Raytheon IDS, San Diego, and the Integrated Combat System Test Facility, at Naval Surface Warfare Center Dahlgren. FY15-FY21 includes the procurement of COTS Conversion Kits for CVNs, LPDs, LHDs, and LSDs, and COTS Upgrade Kits for the shore sites used for SSDS software development/ maintenance, training, and Combat System integration and certification testing. SSDS procurement also includes various Commercial Off The Shelf (COTS) based systems and equipment used within the integrated combat system. The COTS Tech Refresh conversion kits will support Navy Open Architecture computing environment standards to facilitate software reuse. FY13-FY15 kits are based on a Technology Insertion-12 (TI-12) configuration. FY16-FY19 are based on a TI-16 configuration. FY20-FY21 will be based on a TI-20 configuration. The budget cost estimates for the procurement and installation of the kits varies depending on the specific ship class (CVNs, LPDs, LSDs, LHAs, and LHDs), and the existing configuration of the ship or shore site. The cost estimates for individual COTS conversion kits and their associated installation costs are included in the footnotes of exhibit P3A (for UQ005B).</p> <p>P40A exhibits for SSDS includes the following:</p> <p>[P40A - 3 (SSDS) / UQ002 - Production Engineering support for SSDS hardware.</p> <p>[P40A - 3 (SSDS) / UQ003 - Engineering Change Proposal (ECP) and Ship Change Document (SCD) for SSDS hardware.</p> <p>[P40A - 3 (SSDS) / UQ004 - Training Documentation Changes for SSDS hardware.</p> <p>[P40A - 3 (SSDS) / UQ005A - COTS Engineering / Obsolescence Kits for SSDS hardware.</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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment		P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A - 3 (SSDS) / UQ007 - Combat System Ships Qualification Trials (CSSQT) Combat System Ships Qualification Trials (CSSQTs) are designated for CVNs and AMPHIBs in accordance with NAVSEAINST 9093.1C. CSSQTs will validate installation and performance of Combat System (CS) upgrades, and will ensure crew can operate and maintain the new systems. The execution phase of CSSQT is required to verify/validate CS performance and to qualify the ship and ships forces ability to properly operate and maintain the upgraded ship in an at-sea, Surface Warfare (SUW) and Anti-Air Warfare (AAW) environment. FY17 - FY21 budget includes the CSSQT funding for LHD1 class ships for the Combat System / SSDS MK2 Capstone upgrade.</p> <p>[P40A - 3 (SSDS) / UQ008 - Combat System Documentation & Support Provides for generation, update, and validation of CS documentation as a result of CS configuration changes during ship modernization. This includes the following Ship Selected Records (SSRs)for CVN, LHA, LHD, LPD 17 and LSD 41/49 Class Ships:</p> <p>Capabilities and Limitations (C&L) - provides ship CS AAW and SUW capabilities and limitations tailored to the specific ship CS configuration.</p> <p>CS Interface Diagrams (CSID) - provide essential information for troubleshooting CS inter-systems casualties.</p> <p>Combat System Alignment Manual (CSAM) - provides detailed test and alignment procedures for a specific ship. CSAM is used to ensure that all sensors, weapons, navigation and the Landing Indicator Systems are optically, mechanically, and electronically aligned to the ship's Alignment Reference plane.</p> <p>Overall CS Operability Test (OCSOT) - is a CS test from Detect through Engage to demonstrate material condition readiness of the integrated CS.</p> <p>Support includes planning with Ship Program Manager (SPM) for CS modernization across Amphibious class ships, head-quarter's support, and liaison with local Regional Maintenance Centers (RMC), CS Waterfront Engineers, and NSWC PHD support for Installation Coordination Teams.</p> <p>P3A exhibits for SSDS includes the following: [P3A - 3 (SSDS) / UQ005B - Procurement and installation of SSDS Open Architecture Computing Environment (OACE) COTS conversion Kits and upgrade kits for CVN, LHD, LPD, and LSD class ships and shore sites.</p> <p>[P40A - 4 / AEGIS Support Equipment]: Provides equipment procurement and installation support for AEGIS Shore Facilities and Shipboard Upgrades to AEGIS Cruisers and Destroyers required to maintain the readiness of the AEGIS Weapon System in support of Combatant Commanders requirements. L7001: Provides funding to procure and maintain special test equipment (Adaptive Diagnostic Electronic Portable Test Set(ADEPT)/Radiation Probes) to support Maintenance and Troubleshooting efforts for the AEGIS Weapon System on Deployed Units and Critical shore sites. L7003: Provides funding to procure and maintain IWSL Weapons System and support infrastructure to support fleet issues resolution within the AEGIS Weapon System. L7006: Provides funding to procure and maintain SCSC Weapons and Combat systems and support infrastructure to support fleet training requirements and integration and test efforts required to complete Weapon and Combat System Certification. L7007: Provides funding to procure and maintain ATRC Weapons and Combat systems and support infrastructure to support fleet training requirements for the AEGIS Weapon System. L7011: Provides funding to address fleet hardware issues related to equipment obsolescence, high failure, or to reduce maintenance costs and improve the readiness of the AEGIS Fleet. L7012: Provides Radar Refurbishment to support AEGIS DDG 53-78 in support of AEGIS BL 5.3 Update planned to field in FY18. L7014: Provides SPY 1D/DV radar enhancements for AEGIS DDGs to improve radar reliability L7600: Provides funding to complete installation of ORDALTS and other Ship Changes designed to improve the readiness of the AEGIS Combat System.</p> <p>[P40A - 5 / Vertical Launch Systems]: The MK-41 Vertical Launching System (VLS) is a surface combatant missile launching system, designed to store, select and launch various STANDARD Missile configurations, TOMAHAWK, Tactical TOMAHAWK, EVOLVED SEASPARROW (ESSM) and Vertical Launch ASROC (Anti Submarine ROcket) (VLA) missiles. The MK-41 VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapon systems. Current configurations are: two 61 cell launchers, forward and</p>		

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Exhibit P-40, Budget Line Item Justification: PB 2017 Navy		Date: February 2016
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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	
aft, for 22 TICONDEROGA (CG 47) Class Cruisers beginning with CG-52; one 61 cell aft and one 29 cell launcher forward for 28 ARLEIGH BURKE (DDG 51) Class Destroyers; and one 64 cell launcher aft and one 32 cell launcher forward for 34 DDG 51 FLT IIA ships.		
The OPN requirements procure Engineering Change Proposals/Ordnance Alterations (ECP/ORDALT) and funds sustaining engineering support for Fleet investigations and safety issues. Funds are required for Fleet operational availability, capability, safety and survivability. There are no significant increases or decreases in this program.		
[P40A - 7 / ANTI SHIP MISSILE DECOY SYSTEM]: The Anti-Ship Missile Decoy Program covers a family of decoys and the equipment to deploy them. It is an essential element of the Anti-Ship Missile Defense tactics to counter the threat of enemy homing missiles. NULKA is a joint program with Australia, and is currently in service with the Australian, Canadian, and United States Navies. NULKA consists of Decoy Launching System (MK 53) and Offboard Active Decoy (MK 234). This line contains various equipment and subsystems for a system which will provide the capability to defeat the effectiveness of hostile Anti-Ship cruise missiles. NULKA has been installed on the CG 47, DDG 51, FFG 7, LSD 41, and LSD 49 Classes in prior years. Installation on CVNs began in FY14 and will be installed on nine carriers. The DLF-3B (MK 59) decoy systems responded to an urgent operational need by providing an initial limited interim decoy capability to the Fleet. The Advanced Decoy Architecture Project (ADAP) is EW payload developed under an ONR program that is a replacement for the current payload on the Nulka decoy. The ADAP payload provides an advanced Electronic Warfare (EW) transmitter and increased signal processing capability.		

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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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment

P-1 Line Item Number / Title:
5231 / Ship Missile Support Equipment

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

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

Exhibits Schedule				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	NATO SEASPARROW			- / 0.000	- / 22.445	- / 37.280	- / 20.792	- / -	- / 20.792
P-40a	RAM GMLS			- / 0.000	- / 3.856	- / 2.488	- / 1.494	- / -	- / 1.494
P-40a	Ship Self Defense System			- / 0.000	- / 4.844	- / 5.177	- / 9.800	- / -	- / 9.800
P-40a	AEGIS Support Equipment			- / 0.000	- / 59.427	- / 104.967	- / 155.040	- / -	- / 155.040
P-40a	Vertical Launch Systems			- / 0.000	- / 0.728	- / 0.707	- / 0.623	- / -	- / 0.623
P-40a	ANTI SHIP MISSILE DECOY SYSTEM	P-5a, P-21		- / 0.000	- / 1.778	- / 44.838	- / 50.219	- / -	- / 50.219
P-3a	1 / NATO SEASPARROW (NSSMs Mod 12 (Pg 11-13)/Objective Configuration (OC))			- / 0.000	- / 1.075	- / 4.570	- / 18.105	- / -	- / 18.105
P-3a	2 / UR006 RAM MK-49 GMLS ORDALTS (NON-FMP Install)			- / 0.000	- / 0.517	- / 7.291	- / 6.681	- / -	- / 6.681
P-3a	3 / UQ005B - SSDS COTS CONVERSION KITS (TBD)			- / 0.000	- / 14.922	- / 56.232	- / 45.119	- / -	- / 45.119
P-3a	4 / VV001 NULKA SYSTEMS (TBD)			- / 0.000	- / 10.194	- / 6.372	- / 6.408	- / -	- / 6.408
P-3a	5 / VV003 ENGINEERING CHANGES AND LOGISTICS SUPPORT (TBD)			- / 0.000	- / 3.238	- / 4.686	- / 4.703	- / -	- / 4.703
P-3a	6 / VV831 DLF-3B SYSTEMS (TBD)			- / 0.000	- / 20.546	- / 1.895	- / 1.462	- / -	- / 1.462
P-40	Total Gross/Weapon System Cost			- / 0.000	- / 143.570	- / 276.503	- / 320.446	- / -	- / 320.446

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	NATO SEASPARROW			- / -	- / -	- / -	- / -	- / -	- / -
P-40a	RAM GMLS			- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Ship Self Defense System			- / -	- / -	- / -	- / -	- / -	- / -
P-40a	AEGIS Support Equipment			- / -	- / -	- / -	- / -	- / -	- / -
P-40a	Vertical Launch Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-40a	ANTI SHIP MISSILE DECOY SYSTEM	P-5a, P-21		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / NATO SEASPARROW (NSSMs Mod 12 (Pg 11-13)/Objective Configuration (OC))			- / 10.697	- / 18.036	- / 10.401	- / -	- / 7.200	- / 70.084
P-3a	2 / UR006 RAM MK-49 GMLS ORDALTS (NON-FMP Install)			- / 6.662	- / 3.488	- / 2.537	- / 1.650	- / 1.164	- / 29.990
P-3a	3 / UQ005B - SSDS COTS CONVERSION KITS (TBD)			- / 50.266	- / 51.219	- / 52.262	- / 52.882	- / 13.820	- / 336.722
P-3a	4 / VV001 NULKA SYSTEMS (TBD)			- / 6.659	- / 6.838	- / 6.363	- / 4.997	- / 0.001	- / 47.832
P-3a	5 / VV003 ENGINEERING CHANGES AND LOGISTICS SUPPORT (TBD)			- / 4.689	- / 4.067	- / 4.082	- / 4.101	- / -	- / 29.566
P-3a	6 / VV831 DLF-3B SYSTEMS (TBD)			- / -	- / -	- / -	- / -	- / 0.001	- / 23.904
P-40	Total Gross/Weapon System Cost			- / 302.644	- / 255.402	- / 247.983	- / 269.126	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 / 04 / 3 **P-1 Line Item Number / Title:** 5231 / Ship Missile Support Equipment **Aggregated Items Title:** NATO SEASPARROW

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) EQUIPMENT MODERNIZATION - US005																				
1.1) OBJECTIVE CONFIGURATION ENGINEERING	A		-	-	-	-	-	10.000	-	-	-	-	-	-	-	-	-	-	-	-
1.2) MISSILE LAUNCHER UPGRADE	A		-	-	-	-	-	-	-	-	31.100	-	-	8.600	-	-	-	-	-	8.600
1.3) PRODUCTION SUPPORT	A		-	-	-	-	-	1.500	-	-	1.500	-	-	1.500	-	-	-	-	-	1.500
1.5) LHD UPGRADE (1)	A		-	-	-	-	-	9.735	-	-	4.680	-	-	10.692	-	-	-	-	-	10.692
Subtotal: 1) EQUIPMENT MODERNIZATION - US005			-	-	0.000	-	-	21.235	-	-	37.280	-	-	20.792	-	-	-	-	-	20.792
2) STALKER - US005																				
2.1) STALKER PRODUCTION SUPPORT	A		-	-	-	-	-	1.210	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 2) STALKER - US005			-	-	0.000	-	-	1.210	-	-	-	-	-	-	-	-	-	-	-	-
Total			-	-	0.000	-	-	22.445	-	-	37.280	-	-	20.792	-	-	-	-	-	20.792

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

Footnotes:

(1) FY 16 - \$4.7M to FY 17 - \$10.7M increase to fund depot upgrade of equipment. This line funds upgrade of legacy launcher and radar equipment and installs new Transmitter Upgrade (SSTX) (P3a) and ESSM ORDALTs (P3a) required to deliver an OCP2 system. The funding increase in FY 17 reflects the start of equipment upgrades for the FY 19 ship delivers.

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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 / 04 / 3					P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment										Aggregated Items Title: RAM GMLS ⁽²⁾					
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) UR006 RAM MK-49 GMLS ORDALTS ⁽³⁾																				
1.1) UR006 RAM MK-49 GMLS ORDALTS ⁽⁴⁾	A		-	-	-	-	-	0.156	-	-	0.688	-	-	1.404	-	-	-	-	-	1.404
Subtotal: 1) UR006 RAM MK-49 GMLS ORDALTS			-	-	0.000	-	-	0.156	-	-	0.688	-	-	1.404	-	-	-	-	-	1.404
2) UR901 Systems Improvements ⁽⁵⁾																				
2.1) UR901 System Improvement	A		-	-	-	-	-	3.700	-	-	1.800	-	-	0.090	-	-	-	-	-	0.090
Subtotal: 2) UR901 Systems Improvements			-	-	0.000	-	-	3.700	-	-	1.800	-	-	0.090	-	-	-	-	-	0.090
Total			-	-	0.000	-	-	3.856	-	-	2.488	-	-	1.494	-	-	-	-	-	1.494

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

Footnotes:

- ⁽²⁾ NSWC Port Hueneme provides installation oversight support as the In-Service Engineering Activity (ISEA) for the RAM GMLS system.
- ⁽³⁾ These funds provide for GMLS production support, systems engineering, logistics, Ship Change Designs (SCD), Engineering Change Proposals (ECP), ship drawings for ORDALT instructions as well as information assurance (IA) compliance and safety and Interactive Electronic Technical Manuals (IETM). RAM ECP funds in FY15-FY17 are for the Ethernet upgrade which provides replacement of the Legacy Fiber Distributed Data Interface (FDDI) Combat System interface with an Ethernet Combat System interface. The Ethernet interface is required for the RAM launcher to operate with the SSDS MK Capstone Combat System. This upgrade will allow RAM to operate on LHD class ships that have been upgraded with Capstone SSDS MK2 Combat Systems. LHD self defense will suffer without RAM integration as these ships will only be unable to fire either RAM Block 1 or RAM Block 2 missiles in manual mode.
- ⁽⁴⁾ Production support increases due to IA, Obsolescence and Safety Support.
- ⁽⁵⁾ Provides for procurement and installation of critical RAM system improvement and safety ORDALTs

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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 / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Aggregated Items Title: Ship Self Defense System ⁽⁶⁾
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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)
1) Ship Self Defense System (SSDS)																				
1.1) UQ002 - SSDS Production Support	A		-	-	-	-	-	1.679	-	-	1.708	-	-	1.522	-	-	-	-	-	1.522
1.2) UQ003 - SSDS ECP / SCD	A		-	-	-	-	-	0.192	-	-	0.195	-	-	0.199	-	-	-	-	-	0.199
1.3) UQ004 - SSDS Training	A		-	-	-	-	-	0.701	-	-	0.713	-	-	0.725	-	-	-	-	-	0.725
1.4) UQ005A - SSDS COTS Eng/Obsolescence Kits	A		-	-	-	-	-	2.272	-	-	2.561	-	-	2.605	-	-	-	-	-	2.605
1.5) UQ007 - Combat System Ship Qualification Trial (CSSQT)	A		-	-	-	-	-	-	-	-	-	-	-	3.172	-	-	-	-	-	3.172
1.6) UQ008 - Combat System Documentation & Support	A		-	-	-	-	-	-	-	-	-	-	-	1.577	-	-	-	-	-	1.577
Subtotal: 1) Ship Self Defense System (SSDS)			-	-	0.000	-	-	4.844	-	-	5.177	-	-	9.800	-	-	-	-	-	9.800
Total			-	-	0.000	-	-	4.844	-	-	5.177	-	-	9.800	-	-	-	-	-	9.800

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

Footnotes:

⁽⁶⁾ See P-40 Description (on page 3) for the description of each item listed in P-40a (UQ002, UQ003, UQ004, UQ005A, UQ007, and UQ008).

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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 / 04 / 3 **P-1 Line Item Number / Title:** 5231 / Ship Missile Support Equipment **Aggregated Items Title:** AEGIS Support Equipment ⁽⁷⁾

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) Aegis Support Equipment																				
1.1) L7001 - Depot Special Tooling/Test Equipment	A		-	-	-	-	-	4.085	-	-	4.038	-	-	4.092	-	-	-	-	-	4.092
1.2) L7003 - Integrated Warfare Systems Laboratory ⁽⁸⁾	A		-	-	-	-	-	1.317	-	-	-	-	-	-	-	-	-	-	-	-
1.3) L7006 - Surface Combat Systems Center Equipment ⁽⁹⁾	A		-	-	-	-	-	12.834	-	-	56.560	-	-	36.884	-	-	-	-	-	36.884
1.4) L7007 - Aegis Training and Readiness Center Upgrade ⁽¹⁰⁾	A		-	-	-	-	-	19.386	-	-	11.312	-	-	28.667	-	-	-	-	-	28.667
1.5) L7011 - Aegis Weapon System Ship Change Procurement ⁽¹¹⁾	A		-	-	-	-	-	13.048	-	-	19.390	-	-	11.583	-	-	-	-	-	11.583
1.6) L7012 - SPY Radar Refurbishment ⁽¹²⁾	A		-	-	-	-	-	-	-	-	-	-	-	40.200	-	-	-	-	-	40.200
1.7) L7014 - SPY 1D/DV Radar Enhancements ⁽¹³⁾	A		-	-	-	-	-	-	-	-	-	-	-	24.000	-	-	-	-	-	24.000
1.9) L7600 - Aegis Support Equipment Installation ⁽¹⁴⁾	A		-	-	-	-	-	8.757	-	-	13.667	-	-	9.614	-	-	-	-	-	9.614
Subtotal: 1) Aegis Support Equipment			-	-	0.000	-	-	59.427	-	-	104.967	-	-	155.040	-	-	-	-	-	155.040
Total			-	-	0.000	-	-	59.427	-	-	104.967	-	-	155.040	-	-	-	-	-	155.040

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 / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Aggregated Items Title: AEGIS Support Equipment ⁽⁷⁾

Footnotes:

- ⁽⁷⁾ Provides equipment procurement and installation support for AEGIS Shore Facilities and Shipboard Upgrades to AEGIS Cruisers and Destroyers required to maintain the readiness of the AEGIS Weapon System in support of Combatant Commanders requirements. Combat System Procurements: L7001: Special Tools & Test Equipment L7003: Computers, Displays, and Simulators for Integrated Warfare Systems Laboratory (IWSL) at Dahlgren, VA L7006: Weapon/Combat System Equipment for Surface Combat System Center (SCSC) at Wallops Island, VA L7007: Weapon/Combat System Equipment for AEGIS Readiness Training Center (ATRC) at Dahlgren, VA L7011: AEGIS Weapon System Procurements to support Ship Change Documents L7012: AEGIS Weapon System Procurements to support SPY Refurbishments in support of AEGIS BL 5.3.X Upgrade planned to field in FY18. L7014: AEGIS Weapon System Procurements to support AEGIS SPY-1D/DV Enhancements for AEGIS DDGs L7027: AEGIS Software License Procurements to support Shore Facilities and In-Service Ship L7600: AEGIS Installation support for approved ship changes
- ⁽⁸⁾ Eliminates procurement outfitting and maintenance of the Integrated Warfare System Laboratory (IWSL) beyond FY15
- ⁽⁹⁾ FY15 to FY16 increase is to meet AEGIS TI-16 Combat System Hardware suite procurement timeline following OPNAV ACB16 requirements validation, and support AEGIS ACB16 fleet certification requirements, fleet training exercises, and introduction at the Land-Based Test Sites. FY15 to FY16 increase is to meet AEGIS TI-Next Procurements to support AEGIS ACB Next Hardware requirements.
- ⁽¹⁰⁾ FY16 to FY17 increase is to procure AEGIS 20 Hardware to support AEGIS ACB 20 Technician and Operator Training to support fleet introduction of DDG 51 FLT III.
- ⁽¹¹⁾ FY15 to FY16 increase to resolve higher number of ORDALTS required to address Fleet COTS DMS issues on Fielded AEGIS Weapon System.
- ⁽¹²⁾ Establish budget line to procure SPY Radar Refurbishments in support of AEGIS BL 5.3.X Upgrades planned for fielding in FY18. Procures 1 SPY Array set to establish rotatable pools to support installation timelines.
- ⁽¹³⁾ FY16 to FY17 increase is for the procurement of a SPY adjunct signal processor to support installation starting in FY18.
- ⁽¹⁴⁾ FY15 to FY16 increase to support the installation and checkout of AEGIS BL 7.2 Switch and SPY Sidewall Capacitors on DDG 91-103.

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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 / 04 / 3					P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment										Aggregated Items Title: Vertical Launch 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 (\$)	Qty (Each)	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) Vertical Launch Systems																				
1.1) VLS ORDALTS	A		-	-	-	-	-	0.469	-	-	0.453	-	-	0.392	-	-	-	-	-	0.392
1.2) VLS PRODUCTION ENGINEERING	A		-	-	-	-	-	0.205	-	-	0.201	-	-	0.177	-	-	-	-	-	0.177
Subtotal: 1) Vertical Launch Systems			-	-	0.000	-	-	0.674	-	-	0.654	-	-	0.569	-	-	-	-	-	0.569
2) 5A5IN Install Equipment N86 ⁽¹⁵⁾																				
2.1) 5A5IN Install Equipment N86	A		-	-	-	-	-	0.054	-	-	0.053	-	-	0.054	-	-	-	-	-	0.054
Subtotal: 2) 5A5IN Install Equipment N86			-	-	0.000	-	-	0.054	-	-	0.053	-	-	0.054	-	-	-	-	-	0.054
Total			-	-	0.000	-	-	0.728	-	-	0.707	-	-	0.623	-	-	-	-	-	0.623

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

Footnotes:

⁽¹⁵⁾ VLS ORDALT Installation

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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 / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Aggregated Items Title: ANTI SHIP MISSILE DECOY SYSTEM (16)
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Item Number / Title [DODIC]	ID	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) VV002 - NULKA DECOYS																				
1.1) NULKA DECOYS	A		-	-	-	-	-	-	1,778K	12	21.336	1,257K	38	47.766	-	-	-	1,257K	38	47.766
Subtotal: 1) VV002 - NULKA DECOYS			-	-	0.000	-	-	-	-	-	21.336	-	-	47.766	-	-	-	-	-	47.766
2) VV830 - PRODUCTION ENGINEERING																				
2.1) PRODUCTION ENGINEERING	A		-	-	-	-	-	-	-	-	4.673	-	-	2.453	-	-	-	-	-	2.453
Subtotal: 2) VV830 - PRODUCTION ENGINEERING			-	-	0.000	-	-	-	-	-	4.673	-	-	2.453	-	-	-	-	-	2.453
3) VV832 - DLF-3B DECOYS																				
3.1) VV832 DLF-3B DECOYS	A		-	-	-	-	-	0.998	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 3) VV832 - DLF-3B DECOYS			-	-	0.000	-	-	0.998	-	-	-	-	-	-	-	-	-	-	-	-
4) VV833 - DLF-3B LOGISTICS/PRODUCTION SUPPORT																				
4.1) VV833 DLF-3B LOGISTICS/ PRODUCTION SUPPORT	A		-	-	-	-	-	0.780	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 4) VV833 - DLF-3B LOGISTICS/PRODUCTION SUPPORT			-	-	0.000	-	-	0.780	-	-	-	-	-	-	-	-	-	-	-	-
5) VV004 - ADAP PAYLOAD																				
5.1) ADAP PAYLOAD ^(†)	A		-	-	-	-	-	-	537,970.00	35	18.829	-	-	-	-	-	-	-	-	-
Subtotal: 5) VV004 - ADAP PAYLOAD			-	-	0.000	-	-	-	-	-	18.829	-	-	-	-	-	-	-	-	-
Total			-	-	0.000	-	-	1.778	-	-	44.838	-	-	50.219	-	-	-	-	-	50.219

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:

⁽¹⁶⁾ VV001: Procurement of MK 53 Decoy Launching Systems. VV002: Procurement of MK 234 NULKA Decoys. VV003: Engineering Changes and Logistics Support - Funding will procure Engineering Change Proposals (ECPs)/ORDALT Kits to ensure future tactical suitability and viability of NULKA and to address obsolescence, quality assurance, reliability, safety, Electromagnetic Interference (EMI), and diminishing manufacturing source issues. Additionally, funding will provide for updating Logistics including decoy and special purpose test equipment maintenance, provisioning, transportation, and training school support as required. VV830: Production Engineering support to the MK 234 NULKA Decoy. VV832: Engineering Manufacturing Changes (EMCs) on MK 59 Decoy Launch Tubes. VV833: Logistics and Production support for MK 59/DLF-3B systems. Equipment Installation: Funding is for the installation of NULKA Decoy Systems, Fleet Modernization Program installs, and installation of equipment at shore facilities.

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment				Aggregated Items: ANTI SHIP MISSILE DECOY SYSTEM (16)				
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
5) VV004 - ADAP PAYLOAD												
5.1) ADAP PAYLOAD ^(†)		2016	EXELIS / NJ	C / FFP	Naval Research Lab	Feb 2016	Feb 2017	35	537,970.00	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 / 04 / 3						P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment						Aggregated Items: ANTI SHIP MISSILE DECOY SYSTEM (16)											

Items <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
O 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

5) VV004 - ADAP PAYLOAD

5.1) ADAP PAYLOAD																													
1	2016	NAVY	35	-	35	A	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3	3	3	3	12	
						O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
						C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	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														
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3										P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment										Aggregated Items: ANTI SHIP MISSILE DECOY SYSTEM (16)									

O C O		M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Fiscal Year 2018													Fiscal Year 2019													B A L A N C E
								Calendar Year 2018													Calendar Year 2019													
								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S			
								C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	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			

5) VV004 - ADAP PAYLOAD

5.1) ADAP PAYLOAD

1	2016	NAVY	35	23	12	3	3	3	3																												-
										O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S				
										C	O	E	A	E	A	P	A	U	U	U	E	C	O	E	A	E	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
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3		P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment
		Aggregated Items: ANTI SHIP MISSILE DECOY SYSTEM (16)

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	EXELIS - NJ	-	-	-	-	-	-	-	-	-	-	-	-

"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 / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 1 / NATO SEASPARROW
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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	1.075	4.570	18.105	-	18.105	10.697	18.036	10.401	-	7.200	70.084
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	1.075	4.570	18.105	-	18.105	10.697	18.036	10.401	-	7.200	70.084
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	1.075	4.570	18.105	-	18.105	10.697	18.036	10.401	-	7.200	70.084

(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:

[TRANSMITTER UPGRADE (SSTX)] The MK 91 NATO SEASPARROW Re-Architecture Program will integrate NSSMS into SSDS MK 2 architecture to provide an additional layer of ship missile defense. The upgrade will eliminate the analog point to point architecture and other deficiencies resident to the existing MK 57 NSSMS, as well as allow for full exploitation of ESSM. In addition to the reduction in manning realized by RNSSMS, the SSTx Ordnance Alteration (ORDALT) will reduce NSSMS Cost of Ownership for the fleet. Production lead time for SSTx upgrade kits is 24 months. Once completed the kits are sent to Raytheon Technical Services Company (RTSC) where existing cabinets are overhauled/upgraded. This process takes another 12 months. Total time to produce an upgraded SSTx is 36 months.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment						Modification Number / Title: 1 / NATO SEASPARROW			
Models of Systems Affected: MK 57				Modification Type: NSSMs Mod 12 (Pg 11-13)/ Objective Configuration (OC)				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													
Modification Item 1 of 2: Radar Group													
A Kits													
Non-Recurring													
1.1.1) TRANSMITTER UPGRADE (SSTX) - NonOrganic (17)	2 / 0.000	- / -	- / -	2 / 7.480	- / -	2 / 7.480	- / -	2 / 7.767	- / -	- / -	- / -	6 / 15.247	
1.1.2) INTEGRATED RADAR PROCESSOR (IRP) - Organic	- / -	- / -	- / -	4 / 2.149	- / -	4 / 2.149	2 / 1.085	- / -	2 / 1.105	- / -	- / -	8 / 4.339	
1.1.3) TEST SUPPORT - Organic	- / -	- / -	- / -	- / 0.030	- / -	- / 0.030	- / 0.034	- / 0.038	- / 0.015	- / -	- / -	- / 0.117	
1.1.4) COTS OBSOLESCENCE - Organic	- / -	- / -	- / -	- / 0.297	- / -	- / 0.297	- / 0.315	- / 0.333	- / 0.100	- / -	- / -	- / 1.045	
1.1.5) ECP'S - Organic	- / -	- / -	- / -	- / 0.030	- / -	- / 0.030	- / 0.034	- / 0.038	- / 0.020	- / -	- / -	- / 0.122	
Subtotal: Non-Recurring	- / 0.000	- / -	- / -	- / 9.986	- / -	- / 9.986	- / 1.468	- / 8.176	- / 1.240	- / -	- / -	- / 20.870	
Subtotal: Radar Group	2 / 0.000	- / -	- / -	6 / 9.986	- / -	6 / 9.986	2 / 1.468	2 / 8.176	2 / 1.240	- / -	- / -	14 / 20.870	
Modification Item 2 of 2: Launcher Group													
B Kits													
Non-Recurring													
2.1.1) ESSM ORDALT - NonOrganic ⁽¹⁸⁾	3 / 0.000	- / -	- / -	2 / 2.521	- / -	2 / 2.521	1 / 1.360	- / -	1 / 1.400	- / -	- / -	7 / 5.281	
2.1.2) SYSTEM LAUNCHER/CONTROLLER (SLC) - Organic	- / -	- / -	- / -	4 / 2.148	- / -	4 / 2.148	2 / 1.095	- / -	2 / 1.115	- / -	- / -	8 / 4.358	
2.1.3) TEST SUPPORT - Organic	- / -	- / -	- / -	- / 0.030	- / -	- / 0.030	- / 0.034	- / -	- / 0.036	- / -	- / -	- / 0.100	
2.1.4) ECP'S - Organic	- / -	- / -	- / -	- / 0.260	- / -	- / 0.260	- / 0.280	- / -	- / 0.050	- / -	- / -	- / 0.590	
Subtotal: Non-Recurring	- / 0.000	- / -	- / -	- / 4.959	- / -	- / 4.959	- / 2.769	- / -	- / 2.601	- / -	- / -	- / 10.329	
Subtotal: Launcher Group	3 / 0.000	- / -	- / -	6 / 4.959	- / -	6 / 4.959	3 / 2.769	- / -	3 / 2.601	- / -	- / -	15 / 10.329	
Subtotal: Procurement, All Modification Items	- / 0.000	- / -	- / -	- / 14.945	- / -	- / 14.945	- / 4.237	- / 8.176	- / 3.841	- / -	- / -	- / 31.199	
Support (All Modification Items)													
3.1) Launcher Support	- / -	- / -	- / 1.470	- / 1.470	- / -	- / 1.470	- / 1.470	- / 1.470	- / 1.470	- / -	- / -	- / 7.350	
4.1) Radar Support	- / -	- / -	- / 0.500	- / 1.490	- / -	- / 1.490	- / 1.490	- / 1.490	- / 1.490	- / -	- / -	- / 6.460	
Subtotal: Support	- / 0.000	- / -	- / 1.970	- / 2.960	- / -	- / 2.960	- / 2.960	- / 2.960	- / 2.960	- / -	- / -	- / 13.810	
Installation													
Modification Item 1 of 2: Radar Group	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.300	- / 2.100	- / -	- / 3.600	- / 9.000	
Modification Item 2 of 2: Launcher Group	- / 0.000	- / 1.075	- / 2.600	- / 0.200	- / -	- / 0.200	- / 3.500	- / 3.600	- / 1.500	- / -	- / 3.600	- / 16.075	
Subtotal: Installation	- / 0.000	- / 1.075	- / 2.600	- / 0.200	- / -	- / 0.200	- / 3.500	- / 6.900	- / 3.600	- / -	- / 7.200	- / 25.075	

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment						Modification Number / Title: 1 / NATO SEASPARROW			
Models of Systems Affected: MK 57				Modification Type: NSSMs Mod 12 (Pg 11-13)/ Objective Configuration (OC)				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	1.075	4.570	18.105	-	18.105	10.697	18.036	10.401	-	7.200	70.084

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 1 / NATO SEASPARROW

Modification Item 1 of 2: Radar Group

Manufacturer Information

Manufacturer Name: Raytheon ⁽¹⁹⁾	Manufacturer Location: Ports,RI
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			Jan 2017	Jan 2018	Jan 2019	Jan 2020	
Delivery Dates			Jan 2019	Jan 2020	Jan 2021	Jan 2022	

Installation Information

Method of Implementation: ToDo: Get Group Method [iControl]grp:1:: Installation Name: ToDo: Get Group Title [iControl]grp: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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.300	- / -	- / -	- / 0.000	2 / 3.300
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 2.100	- / -	- / -	2 / 2.100
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.600	2 / 3.600
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.300	2 / 2.100	- / -	2 / 3.600	6 / 9.000

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	-	2	6
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	2	6

Method of Implementation (Organic): INTEGRATED RADAR PROCESSOR (IRP) **Installation Quantity:** 8

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 1 / NATO SEASPARROW

Modification Item 2 of 2: Launcher Group

Installation Information

Method of Implementation: [none specified]:: Installation Name: ESSM ORDALT

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 / 1.075	1 / 2.600	- / -	- / -	- / -	1 / 3.300	- / -	- / -	- / -	- / 0.000	3 / 6.975
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / 0.200	- / -	- / 0.200	- / 0.200	2 / 3.600	- / -	- / -	- / -	2 / 4.000
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.500	- / -	- / -	1 / 1.500
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 3.600	1 / 3.600
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	1 / 1.075	1 / 2.600	- / 0.200	- / -	- / 0.200	1 / 3.500	2 / 3.600	1 / 1.500	- / -	1 / 3.600	7 / 16.075

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	-	-	-	-	-	-	1	7
Out	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	1	1	1	-	-	-	-	1	7

Method of Implementation (Organic): SYSTEM LAUNCHER/CONTROLLER (SLC) **Installation Quantity:** 8

Footnotes:

(17) The Transmitter group consists of 2 transmitters and 2 IRPs. Production lead time for IRPs is 17 months and 36 months for the transmitters, which included 24 months production time for the kits and 12 months to install the kits. Shipboard installation will be completed at the end of the 36 month period. SSTXs are currently installed on three of the six LHD 1 Class ships. These ships only require a IRP, SLC and ESSM ORDALT.

(18) Recent changes to the ship availability schedule for LHDs 1-6 has provided an opportunity to further reduce risk for the Missile Launcher Upgrade (MLU) MK29 MOD 6 development program while still meet the delivery of the SSTX/ESSM ORDALT kits to meet ship schedules. Funding in FY 16 will be used to buy MLU long-lead time EDM hardware and test assets allowing delivery of the MLU to the amphib fleet earlier with associated cost savings. Procurement of the SSTX/ESSM ORDALT kits will be moved FY 17 which will still allow time to meet ship delivery schedules. Equipment procured on the P3a makes up the OCP2 systems that are planned for installation on six LHD 1 class ships. An OCP2 systems is comprised of the following: (2) Transmitter Upgrades (SSTX), (2) Integrated Radar Processors (IRPs), (2) ESSM ORDALTs and (2) System Launcher Controllers (SLCs). The LHD 1, 3, and 5 require the Transmitter Upgrade (SSTX), Integrated Radar Processors (IRPs), ESSM ORDALTs, and System Launcher Controllers (SLCs). The LHD 2, 4, and 6 already have the SSTX installed, so only Integrated Radar Processors (IRPs), ESSM ORDALTs, and System Launcher Controllers (SLCs) are required. Procurement lead time for a SSTX is 24 months, 17 months for the ESSM ORDALT, and 12 months for Upgrade/Kit installation at the depot. This results in a 36 month lead time for ship delivery. Equipment procurements are planned to deliver components for a full OCP2 system to the depot in order to allow time to complete the Upgrade/Kit installation in time to meet the ship's Required Delivery Dates (RDD). The FY 17 procurements, along with procurements from prior years, will support installations on the LHD 4, LHD 3, and LHD 1. Slips in ship schedules and rephasing of near term ships has resulted in changes to the procurement plan.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 1 / NATO SEASPARROW

⁽¹⁹⁾ Delivered transmitters kits are sent to RTSC where existing cabinets are overhauled/upgraded with transmitter production kits. This process takes another 12 months until available for install in ship. Total time to produce an upgraded SSTx is 36 months.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 2 / UR006 RAM MK-49 GMLS ORDALTS
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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	0.517	7.291	6.681	-	6.681	6.662	3.488	2.537	1.650	1.164	29.990
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	0.517	7.291	6.681	-	6.681	6.662	3.488	2.537	1.650	1.164	29.990
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	0.517	7.291	6.681	-	6.681	6.662	3.488	2.537	1.650	1.164	29.990

(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 Rolling Airframe Missile is a lightweight, quick-reaction, high firepower missile system designed to provide anti-ship missile defense. The system (MK-31 GMWS) is comprised of a MK-44 Guided Missile Round Pack (GMRP) and the MK 49 Guided Missile Launching System (GMLS), which holds 21 RAM missiles. The 21-round launcher is compatible with various platforms, ranging from large USN amphibious assault ships to Littoral Combat Ship (LCS). This system is designed to counter high density anti-ship, cruise missile raids and provide for ship survivability with accurate terminal guidance, proven lethality and no fire control illumination dependence.

Procurement and installation of RAM MK 49 GMLS critical ORDALTS on CVN, LSD, LPD, LHA, and LCS class ships.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment						Modification Number / Title: 2 / UR006 RAM MK-49 GMLS ORDALTS			
Models of Systems Affected: MK 49 GMLS				Modification Type: NON-FMP Install				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> UR006 RAM MK-49 GMLS ORDALTS													
B Kits													
Recurring													
1.1.1) UR006 RAM MK-49 GMLS ORDALTS - NonOrganic ⁽²⁰⁾	14 / 0.000	- / -	8 / 5.000	8 / 5.000	- / -	8 / 5.000	8 / 5.000	4 / 2.500	2 / 1.250	2 / 1.250	- / -	46 / 20.000	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 5.000	- / 5.000	- / -	- / 5.000	- / 5.000	- / 2.500	- / 1.250	- / 1.250	- / -	- / 20.000	
<i>Subtotal: UR006 RAM MK-49 GMLS ORDALTS</i>	14 / 0.000	- / -	8 / 5.000	8 / 5.000	- / -	8 / 5.000	8 / 5.000	4 / 2.500	2 / 1.250	2 / 1.250	- / -	46 / 20.000	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 5.000	- / 5.000	- / -	- / 5.000	- / 5.000	- / 2.500	- / 1.250	- / 1.250	- / -	- / 20.000	
Installation													
<i>Modification Item 1 of 1:</i> UR006 RAM MK-49 GMLS ORDALTS													
<i>Subtotal: Installation</i>	- / 0.000	- / 0.517	- / 2.291	- / 1.681	- / -	- / 1.681	- / 1.662	- / 0.988	- / 1.287	- / 0.400	- / 1.164	- / 9.990	
Total													
Total Cost (Procurement + Support + Installation)	0.000	0.517	7.291	6.681	-	6.681	6.662	3.488	2.537	1.650	1.164	29.990	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 2 / UR006 RAM MK-49 GMLS ORDALTS

Modification Item 1 of 1: UR006 RAM MK-49 GMLS ORDALTS

Manufacturer Information

Manufacturer Name: Raytheon Co ⁽²¹⁾	Manufacturer Location: Tucson AZA
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	Dec 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates		Sep 2017	Jun 2018	Jun 2019	Jun 2020	Jun 2021	Jun 2022

Installation Information

Method of Implementation: NON-FMP Install:: Installation Name: UR006 RAM MK-49 GMLS ORDALTS

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 / 0.517	4 / 2.291	2 / 0.700	- / 0.000	2 / 0.700	2 / 0.700	- / -	2 / 0.700	- / -	2 / 0.764	14 / 5.672
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	8 / 0.981	- / -	8 / 0.981	- / -	- / -	- / -	- / -	- / -	8 / 0.981
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.962	- / -	- / -	- / -	- / -	8 / 0.962
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 0.988	- / -	- / -	- / -	8 / 0.988
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 0.587	- / -	- / -	4 / 0.587
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.400	- / -	2 / 0.400
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.400	2 / 0.400
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 0.517	4 / 2.291	10 / 1.681	- / -	10 / 1.681	10 / 1.662	8 / 0.988	6 / 1.287	2 / 0.400	4 / 1.164	46 / 9.990

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	-	-	-	4	-	-	-	2	-	-	8	2	-	8	-	-	-	8	-	2	-	4	-	-	-	2	-	4	46
Out	-	-	-	2	-	-	-	2	2	-	-	-	10	-	-	-	10	-	-	-	8	-	-	-	6	-	-	-	2	4	46

Footnotes:

⁽²⁰⁾ MOD 1 to MOD 3 procurements shown in prior years were procured under BLI 5238 and are being installed under BLI 5231 due to the LSD schedule and rephrasing. FY16-FY21 procurements are for Tech Refresh/Safety/IA ORDALTS to include a MAM kit per ship set. The Tech Refresh launcher ORDALTS are required to field RAM BLK 2+ capabilities for increased performance improvements bringing amplified fire power to the fleet. Installation costs are associated with Mod 1 to Mod 3 ORDALT installs as well as Tech Refresh/Safety/IA ORDALT installations. Installs noted below reflect ship sets (QTY 2 per ship): FY15: 1 MOD 1 to MOD 3 ORDALT install; FY16: 2 MOD 1 to MOD 3 ORDALT installs; FY17: 1 MOD 1 to MOD 3 ORDALT install and 4 Ships Tech Refresh/Safety/IA ORDALT Installs; FY18: 1 MOD 1 to MOD

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 2 / UR006 RAM MK-49 GMLS ORDALTS
3 ORDALT install and 3 Ships Tech Refresh/Safety/IA ORDALT Installs; FY19: 4 Ships Tech Refresh/Safety/IA ORDALT Installs; FY20: 1 MOD 1 to MOD 3 ORDALT install and 2 Ships Tech Refresh/Safety/IA ORDALT Installs; FY21: 1 Ships Tech Refresh/Safety/IA ORDALT Installs; (21) Tech Refresh/Safety/IA ORDALTS		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment				Modification Number / Title: 3 / UQ005B - SSDS COTS 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	14.922	56.232	45.119	-	45.119	50.266	51.219	52.262	52.882	13.820	336.722
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	14.922	56.232	45.119	-	45.119	50.266	51.219	52.262	52.882	13.820	336.722
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	14.922	56.232	45.119	-	45.119	50.266	51.219	52.262	52.882	13.820	336.722
<i>(The following Resource Summary rows are for 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:

SSDS MK 2 Commercial Off The Shelf (COTS) obsolescence technology refresh kits are funded in FY15-FY21. The SSDS procurement supports several variations of COTS based systems and equipment used within the integrated combat system. FY15-FY21 COTS Conversion Kits are planned for CVNs, LPDs, LHDs, and LSDs, and COTS Upgrade Kits are planned for the shore sites used for SSDS software development/maintenance, training, and Combat System integration and certification testing. The COTS Tech Refresh conversion kits will support Navy Open Architecture Computing Environment (OACE) standards to facilitate use of commercial software and reuse of application software. FY13-FY15 kits are based on a Technology Insertion-12 (TI-12) configuration. FY16-FY19 are based on a TI-16 configuration. FY20-FY21 will be based on a TI-20 configuration. The cost estimates for individual COTS conversion kits and their associated installation costs are included in the footnotes in this exhibit P3A (for UQ005B).

[UQ5IN FMP SHIP UNITS]

The cost for the ship and shore site kits vary depending on the specific ship class (CVN, LPD, LSD, LHA, and LHD) and the specific shore site and the existing configuration of the ship/site involved. The costs for each kit are listed below. SSDS kit funding is provided to various contractors and field activities. The SSDS equipment procurement will be based on competitive, fixed price contracts. Production lead time for kits ranges from 9 months (for equipment COTS upgrade kits) to 15 months for system COTS conversion kits for ships and shore sites.

SSDS FY15 unit costs are:

- \$5,928K for (1) LHD COTS Conversion Kit for ACDS replacement in LHD2,(see FY16 Installation Cost below)
- \$882K for (1) Dahlgren Shore Site Upgrade Kit for ICSTF,
- \$883K for (1) Wallops Island Upgrade Kit

Total Cost for 3 units in FY15 (UQ005B) is \$7,693K.

SSDS FY16 unit costs are:

- \$ 6,318K for (1) LPD COTS Conversion Kit,
- \$ 6,318K for (1) Dahlgren COTS Conversion Kit,
- \$ 6,318K for (1) Wallops Island COTS Conversion Kit,

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 3 / UQ005B - SSDS COTS CONVERSION KITS
<p>\$ 6,318K for (1) LPD COTS Conversion Kit for Design Agent System Integration Lab (SIL) \$ 3,517K for (1) Maintenance Trainer COTS Upgrade Kit. \$ 8,167K for (1) LHD COTS Conversion Kit for Design Agent SIL.</p> <p>Total Cost for 6 units in FY16 (UQ005B) is \$36,956K.</p> <hr/> <p>SSDS FY17 unit costs are: \$ 9,474K for (1) CVN COTS Conversion Kit, \$ 12,301K for (1) LHD COTS Conversion Kit for ACDS replacement in LHD6, \$ 6,711K for (1) LPD COTS Conversion Kit, \$ 5,991K for (1) LSD COTS Conversion Kit, \$ 804K for (1) Dahlgren COTS Upgrade Kit, \$ 804K for (1) Wallops Island COTS Upgrade Kit,</p> <p>Total Cost for 6 units in FY17 (UQ005B) is \$36,085K.</p> <hr/> <p>SSDS Ship Installation Costs in FY15 (total \$6,079K) include: \$ 2,136K for Shipyard Services/DSA for LSD45 AIT, \$ 3,943K for Advanced Planning/DSA/Tech Support for (2) LHDs, (3) LSDs, and (1)LPD</p> <hr/> <p>SSDS Ship Installation Costs in FY16 (total \$16,888K) include: \$ 6,925K for AIT/DSA for (2) LHD Kits (for LHD2 SSDS MK2/Combat System AAW Capstone Installation (Includes installation of FY15 LHD2 Kit and of the redesignated LSD47 FY14 Kit (1 of 3 FY14 Ship COTS Conversion Kits shown on the FY2014 procurement row of the P3A exhibit for UQ5IN ship installation information). \$ 7,446K for AIT/DSA for (2) FY14 LSD Kits, \$ 2,517K for Advanced Planning/DSA for (1) CVN, (1) LHD, and (1) LPD.</p> <hr/> <p>SSDS Ship Installation Costs in FY17 (total \$6,813K) include: \$ 3,998K for AIT/DSA for (1) LPD Kit \$ 2,815K for Advanced Planning/DSA for (1) CVN, (1) LHD, (1) LPD, and (1) LSD.</p>		

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3					P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment					Modification Number / Title: 3 / UQ005B - SSDS COTS CONVERSION 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	
	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total Cost (\$ M)</i>	<i>Qty (Each) / Total 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: UQ005B - SSDS COTS CONVERSION KITS</i>													
B Kits													
Recurring													
1.1.1) UQ5IN FMP SHIP UNITS - NonOrganic	3 / 0.000	1 / 5.928	1 / 6.318	4 / 34.477	- / -	4 / 34.477	3 / 19.743	3 / 29.721	3 / 30.227	3 / 25.663	- / -	21 / 152.077	
1.1.2) UQ6IN NON FMP SHORE SITES - NonOrganic	2 / 0.000	2 / 1.765	5 / 30.638	2 / 1.608	- / -	2 / 1.608	4 / 5.730	3 / 4.229	4 / 2.879	4 / 6.372	- / -	26 / 53.221	
<i>Subtotal: Recurring</i>	<i>- / 0.000</i>	<i>- / 7.693</i>	<i>- / 36.956</i>	<i>- / 36.085</i>	<i>- / -</i>	<i>- / 36.085</i>	<i>- / 25.473</i>	<i>- / 33.950</i>	<i>- / 33.106</i>	<i>- / 32.035</i>	<i>- / -</i>	<i>- / 205.298</i>	
<i>Subtotal: UQ005B - SSDS COTS CONVERSION KITS</i>	<i>5 / 0.000</i>	<i>3 / 7.693</i>	<i>6 / 36.956</i>	<i>6 / 36.085</i>	<i>- / -</i>	<i>6 / 36.085</i>	<i>7 / 25.473</i>	<i>6 / 33.950</i>	<i>7 / 33.106</i>	<i>7 / 32.035</i>	<i>- / -</i>	<i>47 / 205.298</i>	
<i>Subtotal: Procurement, All Modification Items</i>	<i>- / 0.000</i>	<i>- / 7.693</i>	<i>- / 36.956</i>	<i>- / 36.085</i>	<i>- / -</i>	<i>- / 36.085</i>	<i>- / 25.473</i>	<i>- / 33.950</i>	<i>- / 33.106</i>	<i>- / 32.035</i>	<i>- / -</i>	<i>- / 205.298</i>	
Installation													
<i>Modification Item 1 of 1: UQ005B - SSDS COTS CONVERSION KITS</i>													
<i>Subtotal: Installation</i>	<i>- / 0.000</i>	<i>- / 7.229</i>	<i>- / 19.276</i>	<i>- / 9.034</i>	<i>- / -</i>	<i>- / 9.034</i>	<i>- / 24.793</i>	<i>- / 17.269</i>	<i>- / 19.156</i>	<i>- / 20.847</i>	<i>- / 13.820</i>	<i>- / 131.424</i>	
Total													
Total Cost (Procurement + Support + Installation)	0.000	14.922	56.232	45.119	-	45.119	50.266	51.219	52.262	52.882	13.820	336.722	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 3 / UQ005B - SSDS COTS CONVERSION KITS

Modification Item 1 of 1: UQ005B - SSDS COTS CONVERSION KITS

Manufacturer Information

Manufacturer Name: TBD (Competitive Procurement)	Manufacturer Location: TBD (Competitive Procurement)
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	Apr 2015	Apr 2016	Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates	Jul 2016	Jul 2017	Apr 2018	Apr 2019	Apr 2020	Apr 2021	Apr 2022

Installation Information

Method of Implementation: [none specified]:: Installation Name: UQ5IN FMP SHIP UNITS - INSTALLATION

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	- / -	- / 2.652	3 / 7.446	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 10.098
FY 2015	- / -	- / 2.884	1 / 6.925	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 9.809
FY 2016	- / -	- / 0.543	- / 0.633	1 / 3.998	- / -	1 / 3.998	- / -	- / -	- / -	- / -	- / -	1 / 5.174
FY 2017	- / -	- / -	- / 1.884	- / 2.815	- / -	- / 2.815	4 / 19.262	- / -	- / -	- / -	- / -	4 / 23.961
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 2.525	3 / 11.745	- / -	- / -	- / -	3 / 14.270
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.515	- / 2.458	3 / 15.353	- / -	- / -	3 / 19.326
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.540	- / 2.516	3 / 15.614	- / -	3 / 19.670
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 3.846	3 / 12.620	3 / 16.466
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / 6.079	4 / 16.888	1 / 6.813	- / -	1 / 6.813	4 / 23.302	3 / 15.743	3 / 17.869	3 / 19.460	3 / 12.620	21 / 118.774

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	-	3	-	-	2	1	1	-	2	-	-	-	2	1	3	21
Out	-	-	-	-	-	-	-	2	-	2	-	-	-	1	-	1	-	3	-	-	2	1	1	-	2	-	-	-	2	4	21

Method of Implementation: Method:: Installation Name: UQ6IN NON FMP SHORE SITES - INSTALLATION

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 / 0.650	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 0.650

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 3 / UQ005B - SSDS COTS CONVERSION KITS

Modification Item 1 of 1: UQ005B - SSDS COTS CONVERSION KITS

Installation Information

Method of Implementation: Method:: Installation Name: UQ6IN NON FMP SHORE SITES - INSTALLATION

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	- / -	- / 0.500	2 / 0.380	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.880
FY 2016	- / -	- / -	- / 2.008	5 / 1.921	- / -	5 / 1.921	- / -	- / -	- / -	- / -	- / -	5 / 3.929
FY 2017	- / -	- / -	- / -	- / 0.300	- / -	- / 0.300	2 / 0.616	- / -	- / -	- / -	- / -	2 / 0.916
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.875	4 / 1.000	- / -	- / -	- / -	4 / 1.875
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.526	3 / 0.900	- / -	- / -	3 / 1.426
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.387	4 / 0.800	- / -	4 / 1.187
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.587	4 / 1.200	4 / 1.787
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 1.150	2 / 2.388	5 / 2.221	- / -	5 / 2.221	2 / 1.491	4 / 1.526	3 / 1.287	4 / 1.387	4 / 1.200	26 / 12.650

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	-	-	-	3	2	-	-	1	1	-	-	2	2	-	-	2	1	-	-	2	2	4	26
Out	-	-	-	-	1	1	-	-	2	-	-	-	3	2	-	-	1	1	-	-	2	2	-	-	2	1	-	-	2	6	26

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 4 / VV001 NULKA SYSTEMS
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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	10.194	6.372	6.408	-	6.408	6.659	6.838	6.363	4.997	0.001	47.832
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	10.194	6.372	6.408	-	6.408	6.659	6.838	6.363	4.997	0.001	47.832
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	10.194	6.372	6.408	-	6.408	6.659	6.838	6.363	4.997	0.001	47.832

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

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

Description:

[NULKA SYSTEMS] Program funds the procurement and installation of the MK53 NULKA System.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3					P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment					Modification Number / Title: 4 / VV001 NULKA SYSTEMS			
Models of Systems Affected: MK 53 DLS				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: VV001 NULKA SYSTEMS</i>													
B Kits													
Recurring													
1.1.1) NULKA SYSTEMS - NonOrganic ⁽²²⁾	2 / 0.000	1 / 0.425	1 / 1.411	1 / 1.300	- / -	1 / 1.300	1 / 1.400	1 / 1.417	1 / 1.460	- / -	- / -	8 / 7.413	
1.1.2) TRAINING EQUIPMENT - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	- / 0.001	
<i>Subtotal: Recurring</i>	- / 0.000	- / 0.425	- / 1.411	- / 1.300	- / -	- / 1.300	- / 1.400	- / 1.417	- / 1.460	- / -	- / 0.001	- / 7.414	
<i>Subtotal: VV001 NULKA SYSTEMS</i>	2 / 0.000	1 / 0.425	1 / 1.411	1 / 1.300	- / -	1 / 1.300	1 / 1.400	1 / 1.417	1 / 1.460	- / -	- / 0.001	8 / 7.414	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 0.425	- / 1.411	- / 1.300	- / -	- / 1.300	- / 1.400	- / 1.417	- / 1.460	- / -	- / 0.001	- / 7.414	
Installation													
<i>Modification Item 1 of 1: VV001 NULKA SYSTEMS</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / 9.769	- / 4.961	- / 5.108	- / -	- / 5.108	- / 5.259	- / 5.421	- / 4.903	- / 4.997	- / -	- / 40.418	
Total													
Total Cost (Procurement + Support + Installation)	0.000	10.194	6.372	6.408	-	6.408	6.659	6.838	6.363	4.997	0.001	47.832	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 4 / VV001 NULKA SYSTEMS

Modification Item 1 of 1: VV001 NULKA SYSTEMS

Manufacturer Information

Manufacturer Name: SECHAN	Manufacturer Location: LITITZ, 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	Feb 2015	Mar 2016	Dec 2016	Dec 2017	Dec 2018	Dec 2019	
Delivery Dates	Jan 2016	May 2017	Feb 2018	Feb 2019	Feb 2020	Feb 2021	

Installation Information

Method of Implementation: AIT:: Installation Name: NULKA 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	- / -	2 / 9.594	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 9.594
FY 2015	- / -	- / 0.175	1 / 4.368	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.543
FY 2016	- / -	- / -	- / 0.368	1 / 4.648	- / -	1 / 4.648	- / -	- / -	- / -	- / -	- / -	1 / 5.016
FY 2017	- / -	- / -	- / 0.225	- / 0.281	- / -	- / 0.281	1 / 4.734	- / -	- / -	- / -	- / -	1 / 5.240
FY 2018	- / -	- / -	- / -	- / 0.179	- / -	- / 0.179	- / 0.270	1 / 4.873	- / -	- / -	- / -	1 / 5.322
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.255	- / 0.360	1 / 4.859	- / -	- / -	1 / 5.474
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.188	- / 0.044	1 / 4.997	- / -	1 / 5.229
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	2 / 9.769	1 / 4.961	1 / 5.108	- / -	1 / 5.108	1 / 5.259	1 / 5.421	1 / 4.903	1 / 4.997	- / -	8 / 40.418

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	-	-	-	1	-	-	-	-	1	-	-	-	8
Out	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	1	1	1	8

Footnotes:
⁽²²⁾ Installs in FY15 are for systems procured in FY13 and FY14 (under BLI:5530). Contract dates in FY15 are for refurbished MK53 system from decommissioned assets.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment				Modification Number / Title: 5 / VV003 ENGINEERING CHANGES AND LOGISTICS SUPPORT				

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	3.238	4.686	4.703	-	4.703	4.689	4.067	4.082	4.101	-	29.566
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	3.238	4.686	4.703	-	4.703	4.689	4.067	4.082	4.101	-	29.566
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	3.238	4.686	4.703	-	4.703	4.689	4.067	4.082	4.101	-	29.566
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

[DLS ORDALT KITS] Funding will procure Engineering Change Proposals (ECPs)/ORDALT Kits to ensure future tactical suitability and viability of NULKA and to address obsolescence, quality assurance, reliability, safety, Electromagnetic Interference (EMI), and diminishing manufacturing source issues. Additionally, funding will provide for updating Logistics including decoy and special purpose test equipment maintenance, provisioning, transportation, and training school support as required.
Installation of Ordalt 73014 (\$400K) is included for the DLPP (Decoy Launch Processor Program) 6_3 upgrade and is included in Cost Code VVINS (Installation of Equipment).

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 5 / VV003 ENGINEERING CHANGES AND LOGISTICS SUPPORT

Models of Systems Affected: DLS/EMC ORDALT KITS	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: N/A</i>												
<i>Subtotal: N/A</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
<i>Subtotal: Procurement, All Modification Items</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Support (All Modification Items)												
2.1) ENGINEERING CHANGES	- / -	- / -	- / 1.147	- / 1.256	- / -	- / 1.256	- / 1.262	- / 1.287	- / 1.133	- / 1.185	- / -	- / 17.270
2.2) LOGISTICS/PRODUCTION SUPPORT	- / -	- / 3.238	- / 3.539	- / 3.447	- / -	- / 3.447	- / 3.427	- / 2.780	- / 2.949	- / 2.916	- / -	- / 22.296
<i>Subtotal: Support</i>	- / 0.000	- / 3.238	- / 4.686	- / 4.703	- / -	- / 4.703	- / 4.689	- / 4.067	- / 4.082	- / 4.101	- / -	- / 29.566
Installation												
<i>Subtotal: Installation</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total												
Total Cost (Procurement + Support + Installation)	0.000	3.238	4.686	4.703	-	4.703	4.689	4.067	4.082	4.101	-	29.566

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Exhibit P-3a, Individual Modification: PB 2017 Navy					Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3			P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment			Modification Number / Title: 5 / VV003 ENGINEERING CHANGES AND LOGISTICS SUPPORT	
<i>Modification Item 1 of 1:</i> N/A							
Manufacturer Information							
Manufacturer Name: N/A				Manufacturer Location: N/A			
Administrative Leadtime (in Months):				Production Leadtime (in Months):			
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): Support Only Installation					Installation Quantity: 0		

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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 / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 6 / VV831 DLF-3B SYSTEMS
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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	20.546	1.895	1.462	-	1.462	-	-	-	-	0.001	23.904
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	20.546	1.895	1.462	-	1.462	-	-	-	-	0.001	23.904
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	20.546	1.895	1.462	-	1.462	-	-	-	-	0.001	23.904

(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:

[DLF-3B SYSTEMS] Procurement of the commercially available DLF-3B decoy systems. A ship system consists of 6 decoys, 6 launch tubes, and 1 control panel.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3				P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment						Modification Number / Title: 6 / VV831 DLF-3B SYSTEMS			
Models of Systems Affected: DLF-3B DECOY SYSTEMS				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> VV831 DLF-3B SYSTEMS													
B Kits													
Non-Recurring													
1.1.1) DLF-3B SYSTEMS - NonOrganic	11 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	11 / 0.001	
<i>Subtotal: Non-Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	- / 0.001	
<i>Subtotal: VV831 DLF-3B SYSTEMS</i>	11 / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	11 / 0.001	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.001	- / 0.001	
Installation													
<i>Modification Item 1 of 1:</i> VV831 DLF-3B SYSTEMS	- / 0.000	- / 20.546	- / 1.895	- / 1.462	- / -	- / 1.462	- / -	- / -	- / -	- / -	- / -	- / 23.903	
<i>Subtotal: Installation</i>	- / 0.000	- / 20.546	- / 1.895	- / 1.462	- / -	- / 1.462	- / -	- / -	- / -	- / -	- / -	- / 23.903	
Total													
Total Cost (Procurement + Support + Installation)	0.000	20.546	1.895	1.462	-	1.462	-	-	-	-	0.001	23.904	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5231 / Ship Missile Support Equipment	Modification Number / Title: 6 / VV831 DLF-3B SYSTEMS

Modification Item 1 of 1: VV831 DLF-3B SYSTEMS

Manufacturer Information							
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:: Installation Name: DLF-3B 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	- / -	9 / 20.546	1 / 1.895	1 / 1.462	- / 0.000	1 / 1.462	- / -	- / -	- / -	- / -	- / 0.000	11 / 23.903
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	9 / 20.546	1 / 1.895	1 / 1.462	- / -	1 / 1.462	- / -	- / -	- / -	- / -	- / -	11 / 23.903

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	2	4	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11
Out	-	-	1	3	1	-	-	-	3	1	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	

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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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment	P-1 Line Item Number / Title: 5253 / Tomahawk 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: N/A
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Line Item MDAP/MAIS Code: 289	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>)	481.746	60.062	71.245	71.046	-	71.046	72.855	72.318	72.477	73.972	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	481.746	60.062	71.245	71.046	-	71.046	72.855	72.318	72.477	73.972	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	481.746	60.062	71.245	71.046	-	71.046	72.855	72.318	72.477	73.972	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>)	-	0.311	0.161	0.177	-	0.177	0.207	0.246	0.146	0.139	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Decrease in Tomahawk Support Equipment by \$2.958M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

The Theater Mission Planning Center (TMPC) consists of Commercial and Government Off-The-Shelf (COTS/GOTS) software and COTS hardware. TMPC provides targeting, mission planning, strike planning and execution, mission distribution, and operational employment capabilities for the Tomahawk Land Attack Missile (TLAM). Continuous TMPC software development decreases mission planning time and increases the quality and accuracy of each mission while reducing complexity. TMPC provides mission planning at the theater and operational levels and is designed for high rate mission planning production responsive to national strategic, operational, and tactical requirements. TMPC develops and distributes missions for the Tomahawk Missile; provides command information services for TWS; provides strike planning, execution, coordination, control and reporting, and provides Maritime Component Commanders (MCC) the capability to plan or modify conventional TLAM missions. TMPC has evolved into scalable configurations deployed in four configurations at 180 sites: Cruise Missile Support Activities (CMSAs) (3+1 FMS), Tomahawk Strike and Mission Planning Cells (TSMPCs) (3 - C5F, C6F, C7F), Carrier Strike Groups (CSGs) (16 - 10 CVN), Firing Units (FRUs) (84 Surface/56 Submarines), and Fleet Training Sites and Labs (17). TMPC supports major joint combat operations and Overseas Contingency Operations. TMPC was previously referred to as the Tomahawk Command and Control System (TC2S).

Funds provide for systems engineering, testing, Independent Verification & Validation (IV&V), Security Accreditation, installation, site acceptance testing, user familiarization of products and hardware. The Selective Availability Anti-Spoofing Module (SAASM) Global Positioning System (GPS) capability, workflow improvements to Mission Planning, Strike Planning & Execution and TWS Single System initiative are included in this line to transition to a Service Oriented Architecture, improve TCS "Kill Chain" planning and communications architecture and system effectiveness. Also, this funding line provides for COTS/GOTS refreshment, engineering changes, software upgrades, and associated SSNs/DDGs/CGs/CVN logistics, and infrastructure to maintain compatibility and interoperability with existing and future TMPC system configurations.

Surface and Submarine Tactical Tomahawk Weapon Control System (TTWCS) is a post milestone III program executing its first major tech refresh since its 2004 IOC. The first phase of this tech refresh partially resolves processor component obsolescence. The final phase completes all hardware and software obsolescence efforts and will be fleet released in 2016. TTWCS functions include: Tasking validation (missile mission matching), planning of over the water routes, initialization, preparation and launch of BLK III/IV missiles. TTWCS reduced response time and increased operational flexibility through addition of Launch Platform Mission Planning (LPMP), and in-flight monitoring and control of Blk IV missiles. Final Phase efforts began in FY12 and consist of the completion of full TTWCS hardware technology refresh, C4I Web services interfaces and operability to be fielded in backfit firing units. In addition, funds provided to continue TTWCS viability in TTWCS v5.6 and ensure compliance with cyber security mandates, continue to address hardware obsolescence through periodic COTS hardware refresh and periodically refresh of GOTS software to address obsolescence, support migration from 32 bit to 64 bit architecture and migrate

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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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment		P-1 Line Item Number / Title: 5253 / Tomahawk Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: 289	Item MDAP/MAIS Code(s): N/A	
<p>away from legacy Ada code. Finally it will allow reduction of system complexity and incorporation of critical software fixes. Program options are being identified that will enable TWS integration into future platforms. Included in those options will be changes necessary for TTWCS to ensure required functionality as the missile is modernized beginning in FY19.</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 04: Ordnance Support Equipment / BSA 3: Ship Missile Systems Equipment

P-1 Line Item Number / Title:
5253 / Tomahawk Support Equipment

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

Line Item MDAP/MAIS Code: 289 **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 / 525300, TOMAHAWK Support Equipment			- / 481.746	- / 60.062	- / 71.245	- / 71.046	- / -	- / 71.046
P-40	Total Gross/Weapon System Cost			- / 481.746	- / 60.062	- / 71.245	- / 71.046	- / -	- / 71.046

*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 is required to continue fielding version 5.4.0 and begin fielding of TTWCS hardware/software obsolescence updates (v5.4.0.2). Funds also provide for integration, modernization and interoperability efforts necessary to keep pace with changes, retain capability and exploit capabilities of internal (TWS All-Up-Round missile and TTWCS) and external (Modernized Integrated Data Base (MIDB)), National Geospatial Intelligence Agency (NGA) products, Distributed Common Ground Systems (DCGS) Integrated Backbone (DIB) compliance, Future Imagery Architecture (FIA) imagery formats and Intelligence Surveillance & Reconnaissance (ISR) interfaces, Network Centric Enterprise Services (NCES), Global Information Grid/Internet Protocol (GIG/IP) (V)6, FORCEnet compliance systems/interfaces to the effectiveness of the TWS, into TMPC deployed configurations. Funding supporting TTWCS is appropriately phased to complete the 1st major tech refresh since IOC in 2004. Funding is required in FY17 to comply with commercial hardware/software supportability mandates, obsolescence, information assurance requirements and to maintain pace with modern computing architectures.

Funding is required to initiate and continue the upgrade of unsupported and obsolete TMPC software to insure compliance with DoD cyber security mandates. Funding also addresses a National Technical Means (NTM) imagery format change. The NTM change requires TMPC upgrades to be fielded to all TLAM mission planning sites by 3QFY18. The Tomahawk Weapon System cannot execute a mission successfully without the NTM imagery as it is used by TMPC for precision targeting and mission planning. This line also funds the implementation of the TMPC Enterprise Network (TEN) necessary to rapidly and effectively manage the distribution of software patches to all operational sites without compromising TMPC's Authority to Operate (ATO). Instead of funding costly site installation teams, new TMPC software releases and patches would be deployed to operational sites electronically. The TEN would be capable of: (1) remote promulgation of security policies, Information Assurance Vulnerability Assessments (IAVA) security patches, and anti-virus definitions to keep pace with increasing cyber security mandates; (2) remote Configuration Management (CM) from a central location for the definition, control, distribution and implementation of official releases and configurations; (3) remote audit and help desk maintenance support for all TMPC configurations; and (4) Continuity of Operations (COOP) during site system failures or natural disasters. FY17 continues TEN Implementation and TMPC 6.0 modernization upgrade.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5253 / Tomahawk Support Equipment	Item Number / Title [DODIC]: 1 / 525300, TOMAHAWK Support Equipment

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)	481.746	60.062	71.245	71.046	-	71.046
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	481.746	60.062	71.245	71.046	-	71.046
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	481.746	60.062	71.245	71.046	-	71.046

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

Initial Spares (\$ in Millions)	-	0.311	0.161	0.177	-	0.177
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 - TTWCS Cost																		
Recurring Cost																		
1.1.1) Tactical Tomahawk Weapon Control System (TTWCS) Hardware ⁽¹⁾	-	-	10.357	-	-	1.460	-	-	2.594	-	-	1.519	-	-	-	-	-	1.519
<i>Subtotal: Recurring Cost</i>	-	-	10.357	-	-	1.460	-	-	2.594	-	-	1.519	-	-	-	-	-	1.519
<i>Subtotal: Hardware - TTWCS Cost</i>	-	-	10.357	-	-	1.460	-	-	2.594	-	-	1.519	-	-	-	-	-	1.519
Hardware - HARDWARE RECURRING SUPPORT - TTWCS Cost																		
Recurring Cost																		
2.1.1) TTWCS Product Improvement ⁽²⁾	-	-	113.793	-	-	9.116	-	-	11.511	-	-	17.412	-	-	-	-	-	17.412
<i>Subtotal: Recurring Cost</i>	-	-	113.793	-	-	9.116	-	-	11.511	-	-	17.412	-	-	-	-	-	17.412
<i>Subtotal: Hardware - HARDWARE RECURRING SUPPORT - TTWCS Cost</i>	-	-	113.793	-	-	9.116	-	-	11.511	-	-	17.412	-	-	-	-	-	17.412
Hardware - TMPC Cost																		
Recurring Cost																		
3.1.1) Tomahawk Mission Planning Center (TMPC) Hardware ⁽³⁾	-	-	16.574	-	-	2.427	-	-	2.765	-	-	2.969	-	-	-	-	-	2.969
<i>Subtotal: Recurring Cost</i>	-	-	16.574	-	-	2.427	-	-	2.765	-	-	2.969	-	-	-	-	-	2.969

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Exhibit P-5, Cost Analysis: PB 2017 Navy													Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3						P-1 Line Item Number / Title: 5253 / Tomahawk Support Equipment						Item Number / Title [DODIC]: 1 / 525300, TOMAHAWK Support Equipment						
ID Code (A=Service Ready, B=Not Service Ready) :										MDAP/MAIS Code:								
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or sum exactly due to rounding.																		
Cost Elements	Prior Years			FY 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 - TMPC Cost</i>	-	-	16.574	-	-	2.427	-	-	2.765	-	-	2.969	-	-	-	-	-	2.969
Software - PRODUCT IMPROVEMENTS - TMPC Cost																		
Recurring Cost																		
4.1.1) TMPC Product Improvements ⁽⁴⁾	-	-	102.807	-	-	18.224	-	-	22.635	-	-	17.923	-	-	-	-	-	17.923
<i>Subtotal: Recurring Cost</i>	-	-	102.807	-	-	18.224	-	-	22.635	-	-	17.923	-	-	-	-	-	17.923
<i>Subtotal: Software - PRODUCT IMPROVEMENTS - TMPC Cost</i>	-	-	102.807	-	-	18.224	-	-	22.635	-	-	17.923	-	-	-	-	-	17.923
Support - Support - TTWCS Cost																		
5.1) TTWCS Production Engineering	-	-	21.075	-	-	1.048	-	-	1.018	-	-	1.038	-	-	-	-	-	1.038
5.2) TTWCS Integrated Logistic Support ⁽⁵⁾	-	-	78.761	-	-	10.048	-	-	9.982	-	-	10.971	-	-	-	-	-	10.971
<i>Subtotal: Support - Support - TTWCS Cost</i>	-	-	99.836	-	-	11.096	-	-	11.000	-	-	12.009	-	-	-	-	-	12.009
Support - TMPC Cost																		
6.1) TMPC Production Engineering ⁽⁶⁾	-	-	28.510	-	-	3.840	-	-	4.295	-	-	4.392	-	-	-	-	-	4.392
6.2) TMPC Production Support ⁽⁷⁾	-	-	26.677	-	-	3.665	-	-	4.032	-	-	4.164	-	-	-	-	-	4.164
6.3) TMPC Integrated Logistic Support ⁽⁸⁾	-	-	59.164	-	-	10.234	-	-	12.413	-	-	10.658	-	-	-	-	-	10.658
<i>Subtotal: Support - TMPC Cost</i>	-	-	114.351	-	-	17.739	-	-	20.740	-	-	19.214	-	-	-	-	-	19.214
Support - ILS INSTALLATIONS Cost																		
7.1) FMP Installations	-	-	15.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - ILS INSTALLATIONS Cost</i>	-	-	15.139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Support - Miscellaneous Cost																		
8.1) TTWCS Other Cost	-	-	8.889	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - Miscellaneous Cost</i>	-	-	8.889	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	481.746	-	-	60.062	-	-	71.245	-	-	71.046	-	-	-	-	-	71.046

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 3	P-1 Line Item Number / Title: 5253 / Tomahawk Support Equipment	Item Number / Title [DODIC]: 1 / 525300, TOMAHAWK Support Equipment
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>Footnotes:</p> <p>(1) TTWCS Hardware funds are required to address hardware obsolescence through periodic COTS hardware refresh. Increase from FY15 to FY16 due to internal realignment to fund hardware procurements. Decrease from FY16 to FY17 due to line item being restored to normal funding levels post FY16 internal realignment.</p> <p>(2) Increase in the product improvement in FY17 is associated with resolving hardware/software obsolescence and supportability requirements due to concurrent test and evaluation of v5.4.0.2 and production support of v5.6.</p> <p>(3) Procures hardware and software for installations of system upgrades at all 180 TMPC sites. This also includes hardware and software for the system developers. FY17 procure the hardware and software for the installation of TMPC 5.0.1 onboard Firing Units (DDGs/CGs/SSNs), Command Staffs, laboratories, and training sites.</p> <p>(4) Provides for software engineering efforts associated with the delivery of system modernization and improvements by the prime developers to continue the upgrade of unsupported and obsolete TMPC software and to insure compliance with DoD cyber security mandates. Funding also addresses a National Technical Means (NTM) imagery format change. The NTM change requires TMPC upgrades to be fielded to all TLAM mission planning sites by 3QFY18. The Tomahawk Weapon System cannot execute a mission successfully without the NTM imagery as it is used by TMPC for precision targeting and mission planning. In FY17, this line also continues the implementation of the TMPC Enterprise Network (TEN) which is necessary to rapidly and effectively manage the distribution of software patches to all operational sites without compromising TMPC's Authority to Operate (ATO). Funding also provides software upgrades to the submarine community to specifically address system interfaces.</p> <p>(5) Increases within the TTWCS Integrated Logistic Support cost code beginning in FY17 are due to higher costs associated with TTWCS v5.4.0.2 installations compared to previous TTWCS baselines.</p> <p>(6) Provides systems engineering support for system design and definition of requirements necessary to evaluate all functional aspects of the TMPC subsystems and workflows that directly impact strike & execution and mission planning products. It includes reviewing TWS and external interfaces for impacts resulting from design upgrades/changes within TWS and by external organizations, Independent Verification & Validation (IV&V), and security accreditation activities.</p> <p>(7) Funds activities that directly support system upgrades requirements such as user events, requirements validation, systems engineering technical reviews, software formal qualification testing, and delta training documentation.</p> <p>(8) Funds installations support associated with the deployment of new TMPC system upgrades to all 180 TMPC sites. FY17 funds the installation of TMPC 5.0.1 onboard Firing Units (DDGs/CGs/SSNs), Command Staffs, laboratories, and training classrooms.</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 04: Ordnance Support Equipment / BSA 4: FBM Support Equipment

P-1 Line Item Number / Title:
5358 / Strategic Missile Systems Equip

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603561N, 0603595N, 0603570N, 0901211N, 0805376N, 0101228N

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>)	751.838	209.583	240.694	215.138	-	215.138	245.396	238.665	254.815	243.736	-	2,399.865
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	751.838	209.583	240.694	215.138	-	215.138	245.396	238.665	254.815	243.736	-	2,399.865
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	751.838	209.583	240.694	215.138	-	215.138	245.396	238.665	254.815	243.736	-	2,399.865

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

Initial Spares (<i>\$ in Millions</i>)	-	-	-	0.140	-	0.140	0.151	0.165	0.124	0.126	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Thousands</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This budget provides for the procurement of Strategic Weapons System (SWS) equipment for deployed ballistic missile submarines (SSBNs) and shore support sites to support the TRIDENT II (D5) program. Included are shipboard subsystem equipment modernization and technical refresh efforts associated with the TRIDENT II (D5) life extension program. TRIDENT II SSBN hull life has been extended, therefore extending system life to FY 2042.

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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 04: Ordnance Support Equipment / BSA 4: FBM Support Equipment

P-1 Line Item Number / Title:
5358 / Strategic Missile Systems Equip

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603561N, 0603595N, 0603570N, 0901211N, 0805376N, 0101228N

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	Strategic Missile Systems Equip	P-5a, P-21		- / 751.838	- / 209.583	- / 240.694	- / 215.138	- / -	- / 215.138
P-40	Total Gross/Weapon System Cost			- / 751.838	- / 209.583	- / 240.694	- / 215.138	- / -	- / 215.138

*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:

OTHER MATERIAL SUPPORT (FY17 \$36.922M)

A broad range of other material support equipment must be procured for deployed SSBNs, shore installations and contractor facilities. Included within this category are general and special purpose test equipment, launcher expendables, navigation principal items, test instrumentation in support of missile flight tests, and missile checkout equipment. Amounts included within this P1 line for this category are subdivided as follows:

-Launcher and Handling Equipment: This funding supports procurement of MK-74 gas generators. Funding in FY 2017 provides for gas generator production.

-Fire Control Equipment: Funding in FY 2017 provides procurement of fire control auxiliary support equipment as well as continued capital maintenance projects at the Naval Industrial Reserve Ordnance Plant (NIROP) in Pittsfield, MA. These projects are essential to correct environmental, safety, and energy conservation deficiencies. Funding also provides procurement of hardware and software for targeting. Funding supports the integration of Navy Enterprise Resource Planning (NERP) and the Advanced Inventory Logistics (SAIL) to track tactical support equipment.

-Navigation Equipment: Funding in FY 2017 provides for stable platform & housing material kits and shock isolation system kits for Electro-statically Supported Gyro Navigator (ESGN) to maintain survivability for the SSBNs. Funding is required for replacement of worn or damaged inertial test equipment used at contractors' plants to support test, evaluation, and analysis of inertial instruments. Funding also provides for factory test equipment refresh to the Teradyne testers which are critical to the testing of the ESGN.

-Instrumentation/Missile Test Equipment: Funding in all years provides for shore based and shipboard test instrumentation equipment in support of missile flight tests. Funding in FY 2017 provides for a refresh of the flight test and pacific range test instrumentation system.

-Information Technology: IT equipment acquisitions (hardware and related software) in support of the Strategic Systems Programs. IT hardware and software components that connect to SWSNET are also part of the acquisitions.

ALTERATIONS (FY17 \$165.629M)

Alterations to non-flying tactical hardware are continuing requirements for the SWS. Requirements primarily relate to shipboard investments in Commercial-off-the-Shelf/Non-Developmental Items (COTS/NDI) SWS subsystem equipment, including periodic refresh cycles, to ensure continued reliable performance of the weapon system for its extended service life to match the OHIO Class life extension. Strategic Programs Alterations (SPALTs) also entail the application of available technology to eliminate personnel safety hazards, correct design deficiencies, maintain system effectiveness by resolving equipment operability problems, achieve logistic economies, and provide for shipboard subsystem D5 life extension modernization efforts.

Funds are required to procure alterations to the SWS launcher and fire control subsystems; to inertial, non-inertial, and ESGN navigation subsystem equipment on deployed SSBNs and installed at supporting shore facilities, including the TRIDENT Training Facility (TTF), Bangor, TTF, Kings Bay, the Ashore Navigation Center, and the Inertial System Test Laboratory; to test instrumentation used on SSBNs, support

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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 04: Ordnance Support Equipment / BSA 4: FBM Support Equipment		P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603561N, 0603595N, 0603570N, 0901211N, 0805376N, 0101228N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>ships and at the Eastern Test Range, the TRIDENT Refit Facility (TRF), Bangor, and TRF, Kings Bay; and to missile handling equipment, missile test and readiness equipment, and surface support equipment. Installation of approved SPALTs is performed on a turnkey basis in conjunction with the procurement of equipment. Use of COTS/NDI has been initiated and is being implemented in all subsystems, wherever possible.</p> <p>The majority of the Alterations funding supports the Shipboard System Integration (SSI) program which utilizes a COTS based strategy that integrates common electronics (from Fire Control, Launcher, Navigation and Shipboard Data Recording Systems) into the fire control sub-system as well as refreshing inertial systems in order to ensure the TRIDENT II (D5) weapon system can be sustained to FY 2042 in support of OHIO Class SSBNs. Below is a description of each SSI Increment:</p> <p>SSI Inc 1: Provide subsystems integration into the MOD 6/7 Tech Refresh for the Fire Control System (FCS) leaving the missile and guidance system interface unchanged. Also provides Ship/Strategic Weapons Support System (SWSS) SHIPALT's for ship interfaces that comprise of power, missile tube cabling, radio room, and Fire Control (FC) cabling. Installation is accomplished during 50 day refit without missile offload.</p> <p>SSI Inc 2: Introduction of an integrated Shipboard Data Systems (SDS) which is comprised of Data Recording Subsystem (DRS), Maintenance Information Network (MIN), and Electronic Work Log (EWL) subsystems. The DRS legacy functionality, connectivity, equipment is unchanged. The EWL subsystem provides software upgrades and the Window 7 Operating System upgrade. Provides subsystem SPALTs for SDS and Strategic Weapons System Maintenance Information Network (SWSMIN) and refresh portable computing devices.</p> <p>SSI Inc 4: Prerequisites are SSI Inc 1 and 2. Increment 4 provides SWS Subsystem SPALTs which includes Mod 6/7 FCS Refresh SPALT, Navigation (NAV) Radio Frequency (RF) SPALT, SDS SPALT, and Cabling SPALT. For the FC Mod 6/7 Refresh it contains the technical refresh, integration and commonality of the system. The DRS legacy software modifies the support of the new NAV/SHIP/DRS and NAV/FC interfaces and format changes. For Navigation changes, the equipment remains in NAV Center. Supplies the first technical refresh in 25 years for Navigation Aids (NAVAIDS) Electronics, frequency standard, workstation, and NAV Control Panel (NCP).</p> <p>Efforts funded in FY17 include:</p> <ul style="list-style-type: none"> - Installation of Increment 4 MOD 6 Fire Control Refresh SPALT Kit - Integration and testing with Navigation and Fire Control - Procurement and begin installation of Navigation SSI Increment 4 SHIPALT <p>SSI Inc 8: Prerequisite is SSI Inc 4. Increment 8 provides replacement of the 30 year old ESGN which needs a refresh of inertial technology components, replacement of the Electronic Equipment Consoles (EEC) , and updates Navigation Subsystem software to accommodate ESGN replacement navigator. Also, provides SWS subsystem SPALTs for FC and TTF NAV Lab trainers, and SDS (DRS) Software SPALT changes which are driven by data requirement changes. The SHIPALTs retain NAV Center bedplate, cabling, chilled water/ventilation, and retain electrical Power.</p> <p>Efforts funded in FY17 include:</p> <ul style="list-style-type: none"> - Laboratory and at-sea testing prototype for the Inertial Navigation System (INS) - Gyroscope Critical Design Review (CDR), Production Readiness Review (PRR) to include acceptance testing to ensure Gyroscopes specs are met - Independent Verification and Validation for Increment 8 efforts - INS Production Software Test and Development Plan - Initiate Production INS Design, and conduct Preliminary Design Review - Procure Gyroscopes for SSI Increment 8 - Alteration efforts of Engineering drawings <p>SSI Inc 10: Prerequisite is SSI Inc 2. Increment 10 provides for the refresh of Shipboard Data 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 04: Ordnance Support Equipment / BSA 4: FBM Support Equipment		P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603561N, 0603595N, 0603570N, 0901211N, 0805376N, 0101228N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Efforts funded in FY17 are the installation of the fire control increment 10 Shipboard Data System SPALT kits.</p> <p>SSI Inc 11: Launcher Initiation System (LIS) is being developed for backfit onto OHIO Class D5LE SSI Inc 1 is a prerequisite. This provides a technical refresh of 30+ year old technology to ensure long term system reliability. SHIP/SWSS SHIPALT are to replace electrical cable with hybrid fiber-optic/electrical cable.</p> <p>Efforts funding in FY17 include: - Procurement of Firing Units/Launch Safing Units - Installation of LIS SPALT kits and Fiberoptic Cables</p> <p>SSI Inc 13: Prerequisite is SSI Inc 4. Increment 13 provides Shipboard Systems Refresh for FCS, NAV, and Missile Test and Readiness Equipment (MTRE) to integrate within the subsystems.</p> <p>Efforts funded in FY17 include: -MTRE efforts to sync with Fire Control software changes for SSI Inc 13. -Procure Navigation SSI Inc 13 SHIPALT</p> <p>SSI Inc 15: Prerequisite is SSI Inc 13. Increment 15 provides pre-configuration and post-configuration support of Increments 8 and 11. This increment provides refresh alterations for fire control equipment, navigation, launcher, and trainer subsystems.</p> <p>Launcher and Handling Equipment: Funding provides for launcher and handling equipment alterations to address aging and obsolescence issues. Funds in FY 2017 provides major Launcher SPALT activities such as the Maintenance Platform Refresh and the Ejector Group Handling Equipment (EGHE) refresh.</p> <p>Fire Control Equipment: Funding in FY17 supports refreshes of the fire control software and hardware required to correct defects.</p> <p>Navigation Equipment: Funding in FY17 provides for the following efforts: - Efforts to support problem correction, fleet documentation, system modeling and simulations - Navigation SPALTs to the legacy ESGN to extend the service life for the fleet usage - Testing of Navigation's software coding - Begin removal and refresh of the GPS Antenna</p> <p>Instrumentation/Missile Checkout equipment: FY 2017 funding provides for Forecast Instrumentation SPALT for hardware modification to submarine instrumentation of flight systems.</p> <p>TRAINING SUPPORT EQUIPMENT (FY17 \$8.252M) This category provides for procurement of, and alterations to, both tactical and non-tactical equipment required at submarine training facilities to train personnel in the operation and maintenance of launcher and handling, fire control, navigation, missile checkout, and test instrumentation subsystems. Each training facility consists of an integrated family of system and unit laboratories that interface with a training simulation system to provide complete and realistic training for replacement and off-crew personnel, both officer and enlisted, as required for manning of SSBNs and shore facilities. Funding is budgeted to procure training-unique equipment required as the result of alterations to SWS tactical equipment, including those associated with D-5 life extension. Funds are required for software and hardware design modification, lab documentation modification, facility modification, and design and system integration, as well as procurement and fabrication of all hardware needed to support Navigation and Fire Control subsystem training at both the TTF, Bangor, and at TTF, Kings Bay. The required effort includes upgrade of the Bangor and Kings Bay Navigation and Fire Control trainers from SSI Increments 4, and 11, Integration of Fire Control SSI Increment 4 and PC Simulation, and for the development of the Virtual Strategic Weapons System (SWSD) classroom trainers. Funding also addresses the need for acquisition of upgrades to the Bangor and Kings Bay TTFs resulting from tactical changes in the TRIDENT II (D5) missile under the Life Extension (LE) program. FY17 tasks will include the SSI Increment 8 PC Simulation and SSI Increment 13 that updates the software to the Fire Control System network and modifies the Navigation interface.</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 04: Ordnance Support Equipment / BSA 4: FBM Support Equipment		P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0603561N, 0603595N, 0603570N, 0901211N, 0805376N, 0101228N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	

NEW START (FY17 \$4.335M)
Funding in this category is in support of the Strategic Arms Reduction Treaty (New START) signed into law on 5 February 2011. New START is a nuclear arms reduction treaty between the United States and the Russian Federation which limits the number of deployed launchers. Funding in FY17 will procure support equipment and associated support for steel closure design, procurement and material support for the missile tubes.

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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 / 04 / 4						P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip						Aggregated Items Title: Strategic Missile Systems 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 (\$ 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) Other Material Support- Launcher and Handling Equipment																				
1.1) Casting Powder Lot Buy	A		1,926.333	9	17.337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) Gas Generator Production ^(†)	A		307.659	44	13.537	314.500	8	2.516	320.625	8	2.565	327.038	8	2.616	-	-	-	327.038	8	2.616
1.3) Launch Tube Closures ^(†)	A		530.135	37	19.615	539.556	18	9.712	-	-	-	-	-	-	-	-	-	-	-	-
1.4) Ballast Production ^(†)	A		-	-	-	-	-	-	-	-	-	437.000	15	6.555	-	-	-	437.000	15	6.555
1.5) Second Explosives Handling Wharf (EHW) Support Equipment	A		-	-	5.864	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.6) Second Explosives Handling Wharf (EHW) Outfitting	A		-	-	5.925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 1) Other Material Support- Launcher and Handling Equipment			-	-	62.278	-	-	12.228	-	-	2.565	-	-	9.171	-	-	-	-	-	9.171
2) Other Material Support-Fire Control Equipment																				
2.1) Nirrop Capital Maintenance	A		-	-	18.072	-	-	3.350	-	-	2.855	-	-	2.722	-	-	-	-	-	2.722
2.2) Fire Control Auxillary Support Equipment	A		-	-	8.940	-	-	0.530	-	-	1.876	-	-	3.958	-	-	-	-	-	3.958
2.3) D5 Targeting Hardware	A		-	-	-	-	-	0.830	-	-	0.845	-	-	0.860	-	-	-	-	-	0.860
2.4) Advanced Inventory Logistics (SAIL)	A		-	-	-	-	-	1.354	-	-	1.865	-	-	1.371	-	-	-	-	-	1.371
2.5) Targeting Software Refresh	A		-	-	-	-	-	6.015	-	-	8.365	-	-	10.524	-	-	-	-	-	10.524
Subtotal: 2) Other Material Support- Fire Control Equipment			-	-	27.012	-	-	12.079	-	-	15.806	-	-	19.435	-	-	-	-	-	19.435
3) Other Material Support-Navigation Equipment																				
3.1) Stable Platform and Housing Material Kits ^(†)	A		359.625	16	5.754	364.500	6	2.187	371.000	5	1.855	378.000	2	0.756	-	-	-	378.000	2	0.756
3.2) Shock Isolation System Kits ^(†)	A		720.167	6	4.321	733.000	6	4.398	747.000	6	4.482	760.708	2	1.521	-	-	-	760.708	2	1.521
3.3) Factory Test Equipment	A		-	-	-	-	-	-	-	-	-	-	-	1.875	-	-	-	-	-	1.875
Subtotal: 3) Other Material Support- Navigation Equipment			-	-	10.075	-	-	6.585	-	-	6.337	-	-	4.152	-	-	-	-	-	4.152

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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 / 04 / 4						P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip						Aggregated Items Title: Strategic Missile Systems 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 (\$ 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) Other Material Support- Instrumentation/Missile Checkout Equipment																				
4.1) Umbilical Sets/ Kits ^(†)	A		1,948.000	4	7.792	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.2) Fire Suppression System ^(†)	A		300.000	1	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.3) Electronic Documentation Refresh	A		-	-	1.852	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.4) Data System Integration	A		-	-	1.077	-	-	0.382	-	-	0.389	-	-	0.396	-	-	-	-	-	0.396
4.5) Flight Test Instrumentation (FTI) Refresh	A		-	-	21.391	-	-	11.293	-	-	2.750	-	-	1.139	-	-	-	-	-	1.139
Subtotal: 4) Other Material Support- Instrumentation/Missile Checkout Equipment			-	-	32.412	-	-	11.675	-	-	3.139	-	-	1.535	-	-	-	-	-	1.535
5) Other Material Support- Information Technology																				
5.1) Hardware/ Software IT Procurement	A		-	-	10.413	-	-	2.537	-	-	2.586	-	-	2.629	-	-	-	-	-	2.629
Subtotal: 5) Other Material Support- Information Technology			-	-	10.413	-	-	2.537	-	-	2.586	-	-	2.629	-	-	-	-	-	2.629
6) Alterations-Launcher and Handling Equipment																				
6.1) Detonator Power Assembly SPALT	A		2,810.000	1	2.810	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.2) Detonator Relay Box SPALT	A		1,902.000	2	3.804	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.3) Hoist ^(†)	A		1,556.500	6	9.339	1,585.000	2	3.170	1,613.500	2	3.227	-	-	-	-	-	-	-	-	-
6.4) Launcher SPALTS	A		-	-	-	-	-	2.760	-	-	10.784	-	-	13.468	-	-	-	-	-	13.468
Subtotal: 6) Alterations-Launcher and Handling Equipment			-	-	15.953	-	-	5.930	-	-	14.011	-	-	13.468	-	-	-	-	-	13.468
7) Alterations-Fire Control																				
7.1) Portable Computing Devices (PCD) Refresh SPALT	A		-	-	-	-	-	2.833	-	-	-	-	-	-	-	-	-	-	-	-
7.2) Minor SPALTS	A		-	-	-	-	-	2.304	-	-	3.216	-	-	5.034	-	-	-	-	-	5.034
Subtotal: 7) Alterations-Fire Control			-	-	0.000	-	-	5.137	-	-	3.216	-	-	5.034	-	-	-	-	-	5.034
8) Alterations-Navigation Equipment																				
8.1) Navigation Sonar System (NSS) Sensor Qualification	A		-	-	17.285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items Title:** Strategic Missile Systems 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 (\$ 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)
8.2) Legacy ESGN SPALTs	A		-	-	-	-	-	4.479	-	-	4.560	-	-	4.642	-	-	-	-	-	4.642
8.3) TSSS Transducer SPALTs	A		-	-	-	-	-	1.242	-	-	1.472	-	-	1.820	-	-	-	-	-	1.820
8.4) Navigation Software SPALTs	A		-	-	-	-	-	4.276	-	-	3.938	-	-	4.009	-	-	-	-	-	4.009
8.5) GPS Antenna Refersh	A		-	-	-	-	-	-	-	-	-	-	-	1.500	-	-	-	-	-	1.500
Subtotal: 8) Alterations-Navigation Equipment			-	-	17.285	-	-	9.997	-	-	9.970	-	-	11.971	-	-	-	-	-	11.971
9) Alterations-Instrumentation/Missile Checkout Equipment																				
9.1) Forecast Instrumentation SPALTs	A		-	-	2.923	-	-	0.749	-	-	0.763	-	-	0.776	-	-	-	-	-	0.776
Subtotal: 9) Alterations-Instrumentation/Missile Checkout Equipment			-	-	2.923	-	-	0.749	-	-	0.763	-	-	0.776	-	-	-	-	-	0.776
10) SSI Increment 1																				
10.1) SSI Increment #1 Production (SHIPALT/SPALT) ^(f)	A		3,322.583	12	39.871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 10) SSI Increment 1			-	-	39.871	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11) SSI Increment 2																				
11.1) SSI Increment #2 Production	A		384.207	29	11.142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.2) SSI Increment #2 Refresh/Redesign	A		-	-	8.215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: 11) SSI Increment 2			-	-	19.357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12) SSI Increment 4																				
12.1) Navigation SSI Increment 4 Refresh/Redesign	A		-	-	60.760	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.2) Navigation Pre-Production Units Electronics SPALT Kits	A		1,450.000	3	4.350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.3) Navigation SSI Increment 4 GPS Receiver Production ^(f)	A		374.417	12	4.493	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.4) Navigation SSI Increment 4 Electronic SPALT Kits ^(f)	A		1,000.000	21	21.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items Title:** Strategic Missile Systems 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 (\$ 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)
12.5) Navigation SSI Increment 4 On Board Repair Parts	A		-	-	6.609	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12.6) Navigation SSI Increment 4 Engineering and Test	A		-	-	27.368	-	-	14.328	-	-	16.958	-	-	9.238	-	-	-	-	9.238	
12.7) Navigation SSI Increment 4 SHIPALT and Installation	A		-	-	-	-	-	-	-	5.301	-	-	6.824	-	-	-	-	-	6.824	
12.8) Fire Control SSI Increment 4 Refresh/Redesign	A		-	-	26.433	-	-	1.018	-	-	-	-	-	-	-	-	-	-		
12.9) Fire Control SSI Increment 4 SPALT Kit Production ^(†)	A		2,835.150	20	56.703	2,886.000	1	2.886	-	-	-	-	-	-	-	-	-	-		
12.10) Fire Control SSI Increment 4 Installation Kits	A		-	-	-	-	-	-	-	-	1.145	-	-	1.288	-	-	-	-	1.288	
Subtotal: 12) SSI Increment 4			-	-	207.716	-	-	18.232	-	-	23.404	-	-	17.350	-	-	-	-	17.350	
13) SSI Increment 8																				
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope ^(†)	A		400.000	30	12.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System ^(†)	A		1,500.000	8	12.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13.3) Navigation SSI Increment 8 Refresh/Redesign	A		-	-	119.802	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
13.4) Navigation SSI Increment 8 Engineering and Test	A		-	-	-	-	-	50.825	-	-	60.402	-	-	50.954	-	-	-	-	50.954	
13.5) Navigation SSI Increment 8 Independent verification and validation	A		-	-	-	-	-	3.193	-	-	3.443	-	-	3.675	-	-	-	-	3.675	
13.6) Navigation SSI Increment 8 Production Gyroscope ^(†)	A		-	-	-	-	-	-	375.000	50	18.750	382.500	50	19.125	-	-	-	382.500	50	19.125
13.7) Navigation SSI Increment 8 SPALT Engineering drawings	A		-	-	-	-	-	3.789	-	-	3.630	-	-	2.645	-	-	-	-	2.645	

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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:					P-1 Line Item Number / Title:										Aggregated Items Title:					
1810N / 04 / 4					5358 / Strategic Missile Systems Equip										Strategic Missile Systems 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 (\$ 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)
Subtotal: 13) SSI Increment 8			-	-	143.802	-	-	57.807	-	-	86.225	-	-	76.399	-	-	-	-	-	76.399
14) SSI Increment 10																				
14.1) Fire Control SSI Increment 10 Shipboard Data System (SDS) SPALT Refresh	A		-	-	-	-	-	5.804	-	-	-	-	-	-	-	-	-	-	-	-
14.2) Fire Control SSI Increment 10 SDS SPALT Kits ^(f)	A		-	-	-	-	-	253.000	14	3.542	-	-	-	-	-	-	-	-	-	-
14.3) Fire Control SSI Increment 10 SDS Install	A		-	-	-	-	-	-	-	-	-	-	0.490	-	-	-	-	-	-	0.490
Subtotal: 14) SSI Increment 10			-	-	0.000	-	-	5.804	-	-	3.542	-	-	0.490	-	-	-	-	-	0.490
15) SSI Increment 11																				
15.1) Launcher SSI Increment 11 LIS Redesign	A		-	-	10.288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.2) Launcher Increment 11 System Integration Testing	A		-	-	5.404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.3) Launcher SSI Increment 11 LIS Support Equipment/ Fiberoptic Cables	A		-	-	3.496	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.4) Launcher SSI Increment 11 LIS Engineering and Test	A		-	-	10.973	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units ^(f)	A		2,730.000	3	8.190	1,544.000	9	13.896	-	-	-	1,606.000	2	3.212	-	-	-	1,606.000	2	3.212
15.6) Launcher SSI Increment 11 LIS Fiberoptic Cables Installation	A		-	-	-	-	-	1.038	-	-	0.529	-	-	0.539	-	-	-	-	-	0.539
15.7) Fire Control SSI Increment 11 LIS SPALT Installs	A		-	-	-	-	-	2.907	-	-	1.529	-	-	1.341	-	-	-	-	-	1.341
Subtotal: 15) SSI Increment 11			-	-	38.351	-	-	17.841	-	-	2.058	-	-	5.092	-	-	-	-	-	5.092
16) SSI Increment 13																				
16.1) Instrumentation/ Missile SSI Increment 13 MTRE Refresh	A		-	-	4.688	-	-	2.306	-	-	2.672	-	-	2.920	-	-	-	-	-	2.920

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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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items Title:** Strategic Missile Systems 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 (\$ 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)
16.2) Navigation SSI Increment 13 Refresh/ Redesign	A		-	-	-	-	-	7.601	-	-	14.373	-	-	17.649	-	-	-	-	-	17.649
16.3) Navigation SSI Increment 13 Shipalt	A		-	-	-	-	-	-	-	-	-	-	-	0.210	-	-	-	-	-	0.210
16.4) Navigation SSI Increment 13 Independent Verification & Validation	A		-	-	-	-	-	-	-	-	-	-	-	0.333	-	-	-	-	-	0.333
16.7) Fire Control SSI Increment 13 Refresh/ Redesign	A		-	-	21.691	-	-	6.798	-	-	14.209	-	-	13.937	-	-	-	-	-	13.937
Subtotal: 16) SSI Increment 13			-	-	26.379	-	-	16.705	-	-	31.254	-	-	35.049	-	-	-	-	-	35.049
18) Training Support Equipment																				
18.1) Training Support Equipment	A		-	-	59.821	-	-	8.621	-	-	20.776	-	-	8.252	-	-	-	-	-	8.252
Subtotal: 18) Training Support Equipment			-	-	59.821	-	-	8.621	-	-	20.776	-	-	8.252	-	-	-	-	-	8.252
19) New START																				
19.1) Ballast Production & Support Equipment	A		-	-	4.875	-	-	3.300	-	-	-	-	-	-	-	-	-	-	-	-
19.2) Steel Closure Design, Procurement & Material	A		-	-	29.315	-	-	2.456	-	-	1.842	-	-	1.535	-	-	-	-	-	1.535
19.3) Material Support, Removed/ Converted Hardware	A		-	-	4.000	-	-	11.900	-	-	13.200	-	-	2.800	-	-	-	-	-	2.800
Subtotal: 19) New START			-	-	38.190	-	-	17.656	-	-	15.042	-	-	4.335	-	-	-	-	-	4.335
Total			-	-	751.838	-	-	209.583	-	-	240.694	-	-	215.138	-	-	-	-	-	215.138

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 / 04 / 4				P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip				Aggregated Items: Strategic Missile Systems Equip				
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
1) Other Material Support- Launcher and Handling Equipment												
1.2) Gas Generator Production		2012	Alliant Tech Systems / Rocket Center, WV	C / CPFF	Washington Navy Yard, DC	Jan 2012	Jan 2014	21	305.714	Y		
1.2) Gas Generator Production		2013	Alliant Tech Systems / Rocket Center, WV	C / CPFF	Washington Navy Yard, DC	Mar 2013	Mar 2015	15	309.400	Y		
1.2) Gas Generator Production		2014	Alliant Tech Systems / Rocket Center, WV	C / CPFF	Washington Navy Yard, DC	Dec 2013	Dec 2015	8	309.500	Y		
1.2) Gas Generator Production		2015	Alliant Tech Systems / Rocket Center, WV	C / CPFF	Washington Navy Yard, DC	Feb 2015	Feb 2017	8	314.500	Y		
1.2) Gas Generator Production		2016	Alliant Tech Systems / Rocket Center, WV	C / CPFF	Washington Navy Yard, DC	Oct 2015	Oct 2017	8	320.625	Y		
1.2) Gas Generator Production		2017	Alliant Tech Systems / Rocket Center, WV	C / TBD	Washington Navy Yard, DC	Oct 2016	Oct 2018	8	327.038	Y		
1.3) Launch Tube Closures ^(t)		2012	NORTHROP GRUMMAN (Launch Tube Closures) / Sunnyvale, CA	C / CPIF	Washington Navy Yard, DC	Feb 2012	Feb 2014	19	530.260	Y		
1.3) Launch Tube Closures ^(t)		2014	NORTHROP GRUMMAN (Launch Tube Closures) / Sunnyvale, CA	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2015	18	530.000	Y		
1.3) Launch Tube Closures ^(t)		2015	NORTHROP GRUMMAN (Launch Tube Closures) / Sunnyvale, CA	C / CPIF	Washington Navy Yard, DC	Feb 2015	Feb 2017	18	539.556	Y		
1.4) Ballast Production ^(t)		2017	Lockheed Martin / Sunnyvale, CA	C / CPIF	Washington Navy Yard, DC	Mar 2017	Mar 2018	15	437.000	Y		
3) Other Material Support-Navigation Equipment												
3.1) Stable Platform and Housing Material Kits		2013	Boeing / Anaheim, CA	C / CPFF	Washington Navy Yard, DC	Nov 2012	Nov 2014	6	358.330	Y		
3.1) Stable Platform and Housing Material Kits		2014	Boeing / Anaheim, CA	C / CPFF	Washington Navy Yard, DC	Jan 2014	Jan 2016	6	358.333	Y		
3.1) Stable Platform and Housing Material Kits		2015	Boeing / Anaheim, CA	C / CPFF	Washington Navy Yard, DC	Feb 2015	Feb 2017	6	364.500	Y		
3.1) Stable Platform and Housing Material Kits		2016	Boeing / Anaheim, CA	C / CPFF	Washington Navy Yard, DC	Oct 2015	Oct 2017	5	371.000	Y		
3.1) Stable Platform and Housing Material Kits		2017	Boeing / Anaheim, CA	C / TBD	Washington Navy Yard, DC	Oct 2016	Oct 2018	2	378.000	Y		
3.2) Shock Isolation System Kits		2014	Boeing / Anaheim, CA	C / CPIF	Washington Navy Yard, DC	Jan 2014	Jan 2015	6	720.167	Y		
3.2) Shock Isolation System Kits		2015	Boeing / Anaheim, CA	C / CPIF	Washington Navy Yard, DC	Feb 2015	Feb 2016	6	733.000	Y		
3.2) Shock Isolation System Kits		2016	Boeing / Anaheim, CA	C / CPIF	Washington Navy Yard, DC	Oct 2015	Oct 2016	6	747.000	Y		
3.2) Shock Isolation System Kits		2017	Boeing / Anaheim, CA	C / TBD	Washington Navy Yard, DC	Oct 2016	Oct 2017	2	760.708	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 / 04 / 4			P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip					Aggregated Items: Strategic Missile Systems Equip				
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
4) Other Material Support- Instrumentation/Missile Checkout Equipment												
4.1) Umbilical Sets/Kits		2012	Lockheed Martin / Sunnyvale,CA	C / CPIF	Washington Navy Yard, DC	Apr 2012	Apr 2015	1	1,948.000	Y		
4.1) Umbilical Sets/Kits		2013	Lockheed Martin / Sunnyvale,CA	C / CPIF	Washington Navy Yard, DC	Dec 2012	Dec 2015	1	1,948.000	Y		
4.1) Umbilical Sets/Kits		2014	Lockheed Martin / Sunnyvale,CA	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2016	1	1,948.000	Y		
4.2) Fire Suppression System		2011	Naval Ordnance Test Unit / Cape Canaveral, FL	C / TBD	Washington Navy Yard, DC	Oct 2010	Oct 2011	1	300.000	Y		
6) Alterations-Launcher and Handling Equipment												
6.3) Hoist		2013	NORTHROP GRUMMAN / Sunnyvale, CA	C / CPFF	Washington Navy Yard, DC	Oct 2012	Jan 2015	2	1,556.500	Y		
6.3) Hoist		2014	NORTHROP GRUMMAN / Sunnyvale, CA	C / CPFF	Washington Navy Yard, DC	Dec 2013	Mar 2016	2	1,556.500	Y		
6.3) Hoist		2015	NORTHROP GRUMMAN / Sunnyvale, CA	C / CPFF	Washington Navy Yard, DC	Feb 2015	May 2017	2	1,585.000	Y		
6.3) Hoist		2016	NORTHROP GRUMMAN / Sunnyvale, CA	C / CPFF	Washington Navy Yard, DC	Oct 2015	Jan 2018	2	1,613.500	Y		
10) SSI Increment 1												
10.1) SSI Increment #1 Production (SHIPALT/SPALT) ^(†)		2013	General Dynamics(SSi Increment #1 Production (SHIPALT/ SPALT)) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Dec 2012	Dec 2014	3	4,203.000	Y		
12) SSI Increment 4												
12.3) Navigation SSI Increment 4 GPS Receiver Production		2014	Lockheed Martin / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2014	2	374.500	Y		
12.4) Navigation SSI Increment 4 Electronic SPALT Kits ^(†)		2013	Lockheed Martin (SSI Increment #4 Navigation Electronic SPALT Kits) / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Nov 2012	Nov 2014	11	1,000.000	Y		
12.4) Navigation SSI Increment 4 Electronic SPALT Kits ^(†)		2014	Lockheed Martin (SSI Increment #4 Navigation Electronic SPALT Kits) / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2015	10	1,000.000	Y		
12.9) Fire Control SSI Increment 4 SPALT Kit Production ^(†)		2012	General Dynamics (SSI Increment #4 MOD 6 Refresh SPALT Kit Production) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Dec 2011	Oct 2014	6	2,835.500	Y		
12.9) Fire Control SSI Increment 4 SPALT Kit Production ^(†)		2013	General Dynamics (SSI Increment #4 MOD 6 Refresh SPALT Kit Production) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Dec 2012	Dec 2015	10	2,835.000	Y		
12.9) Fire Control SSI Increment 4 SPALT Kit Production ^(†)		2014	General Dynamics (SSI Increment #4 MOD 6 Refresh SPALT Kit Production) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2016	4	2,835.000	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 / 04 / 4	P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip	Aggregated Items: Strategic Missile Systems 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 (Each)	Unit Cost (\$ K)	Specs Avail Now?	Date Revision Available	RFP Issue Date
12.9) Fire Control SSI Increment 4 SPALT Kit Production ^(†)		2015	General Dynamics (SSI Increment #4 MOD 6 Refresh SPALT Kit Production) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Feb 2015	Feb 2018	1	2,886.000	Y		
13) SSI Increment 8												
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope ^(†)		2014	Lockheed Martin (SSI Increment #8 EDM Gyroscope) / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2014	30	400.000	Y		
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System ^(†)		2014	Lockheed Martin (SSI Increment #8 EDM Inertial Navigation System (INS)) / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Dec 2013	Dec 2014	8	1,500.000	Y		
13.6) Navigation SSI Increment 8 Production Gyroscope ^(†)		2016	Lockheed Martin (SSI Increment #8 Gyroscope) / Mitchfield, NY	C / CPIF	Washington Navy Yard, DC	Jan 2016	Apr 2017	50	375.000	Y		
13.6) Navigation SSI Increment 8 Production Gyroscope ^(†)		2017	Lockheed Martin (SSI Increment #8 Gyroscope) / Mitchfield, NY	C / TBD	Washington Navy Yard, DC	Jan 2017	Apr 2018	50	382.500	Y		
14) SSI Increment 10												
14.2) Fire Control SSI Increment 10 SDS SPALT Kits		2016	General Dynamics (SSI Increment #10 SDS SPALT kit) / Pittsfield, MA	C / CPIF	Washington Navy Yard, DC	Oct 2015	Oct 2017	14	253.000	Y		
15) SSI Increment 11												
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units ^(†)		2013	NORTHROP GRUMMAN (LIS Firing Units (FUs)/Launch Safing Units (LSUs) / Sunnyvale, CA	C / CPIF	Washington Navy Yard, DC	Oct 2012	Oct 2016	2	2,730.000	Y		
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units ^(†)		2014	NORTHROP GRUMMAN (LIS Firing Units (FUs)/Launch Safing Units (LSUs) / Sunnyvale, CA	C / FFP	Washington Navy Yard, DC	Dec 2013	Dec 2017	1	2,730.000	Y		
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units ^(†)		2015	NORTHROP GRUMMAN (LIS Firing Units (FUs)/Launch Safing Units (LSUs) / Sunnyvale, CA	C / FFP	Washington Navy Yard, DC	Feb 2015	Feb 2019	9	1,544.000	Y		
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units ^(†)		2017	NORTHROP GRUMMAN (LIS Firing Units (FUs)/Launch Safing Units (LSUs) / Sunnyvale, CA	C / TBD	Washington Navy Yard, DC	Nov 2016	Nov 2020	2	1,606.000	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 / 04 / 4						P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip						Aggregated Items: Strategic Missile Systems Equip											

Items (Units in Each)						Fiscal Year 2011												Fiscal Year 2012												B A L A N C E
O C C O #	M F R Y	S E R V I C E	P R O C Q T Y	A C C E P T P R I O R T O 1 O C T 2 0 1 0	B A L D U E A S O F 1 O C T	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	
1) Other Material Support- Launcher and Handling Equipment																														
1.3) Launch Tube Closures																														
2	2012	NAVY	19	-	19																								19	
2	2014	NAVY	18	-	18																								18	
2	2015	NAVY	18	-	18																								18	
1.4) Ballast Production																														
3	2017	NAVY	15	-	15																								15	
10) SSI Increment 1																														
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																														
Prior Years Deliveries: 9																														
4	2013	NAVY	3	-	3																								3	
12) SSI Increment 4																														
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																														
5	2013	NAVY	11	-	11																								11	
5	2014	NAVY	10	-	10																								10	
12.9) Fire Control SSI Increment 4 SPALT Kit Production																														
6	2012	NAVY	6	-	6																								6	
6	2013	NAVY	10	-	10																								10	
6	2014	NAVY	4	-	4																								4	
6	2015	NAVY	1	-	1																								1	
13) SSI Increment 8																														
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																														
7	2014	NAVY	30	-	30																								30	
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																														
8	2014	NAVY	8	-	8																								8	
13.6) Navigation SSI Increment 8 Production Gyroscope																														
9	2016	NAVY	50	-	50																								50	
9	2017	NAVY	50	-	50																								50	
15) SSI Increment 11																														
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																														
10	2013	NAVY	2	-	2																								2	
10	2014	NAVY	1	-	1																								1	
10	2015	NAVY	9	-	9																								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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

Items <i>(Units in Each)</i>						Fiscal Year 2013																Fiscal Year 2014												B A L A N C E	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 2	BAL D U E A S O F 1 O C T	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) Other Material Support- Launcher and Handling Equipment																																			
1.3) Launch Tube Closures																																			
2	2012	NAVY	19	-	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3			
2	2014	NAVY	18	-	18																											18			
2	2015	NAVY	18	-	18																											18			
1.4) Ballast Production																																			
3	2017	NAVY	15	-	15																											15			
10) SSI Increment 1																																			
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																																			
Prior Years Deliveries: 9																																			
4	2013	NAVY	3	-	3				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3			
12) SSI Increment 4																																			
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																																			
5	2013	NAVY	11	-	11				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11				
5	2014	NAVY	10	-	10																											10			
12.9) Fire Control SSI Increment 4 SPALT Kit Production																																			
6	2012	NAVY	6	-	6																											6			
6	2013	NAVY	10	-	10				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10			
6	2014	NAVY	4	-	4																											4			
6	2015	NAVY	1	-	1																											1			
13) SSI Increment 8																																			
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																																			
7	2014	NAVY	30	-	30																											30			
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																																			
8	2014	NAVY	8	-	8																											8			
13.6) Navigation SSI Increment 8 Production Gyroscope																																			
9	2016	NAVY	50	-	50																											50			
9	2017	NAVY	50	-	50																											50			
15) SSI Increment 11																																			
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																																			
10	2013	NAVY	2	-	2	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2				
10	2014	NAVY	1	-	1																											1			
10	2015	NAVY	9	-	9																											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 / 04 / 4	P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip
Aggregated Items: Strategic Missile Systems Equip	

Items <i>(Units in Each)</i>						Fiscal Year 2013												Fiscal Year 2014												BALANCE		
O C 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	
	10	2017	NAVY	2	-	2																										2
							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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

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) Other Material Support- Launcher and Handling Equipment																																				
1.3) Launch Tube Closures																																				
2		2012	NAVY	19	16	3	2	1																						-						
2		2014	NAVY	18	-	18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	-						
2		2015	NAVY	18	-	18																								18						
1.4) Ballast Production																																				
3		2017	NAVY	15	-	15																								15						
10) SSI Increment 1																																				
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																																				
Prior Years Deliveries: 9																																				
4		2013	NAVY	3	-	3	-	-	1	1	1																			-						
12) SSI Increment 4																																				
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																																				
5		2013	NAVY	11	-	11	-	1	1	1	1	1	1	1	1	1														-						
5		2014	NAVY	10	-	10	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	-						
12.9) Fire Control SSI Increment 4 SPALT Kit Production																																				
6		2012	NAVY	6	-	6	1	1	1	1	1																			-						
6		2013	NAVY	10	-	10	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	-						
6		2014	NAVY	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4							
6		2015	NAVY	1	-	1																							1							
13) SSI Increment 8																																				
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																																				
7		2014	NAVY	30	-	30	-	-	3	3	3	3	3	3	3	3	3													-						
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																																				
8		2014	NAVY	8	-	8	-	-	1	1	1	1	1	1	1															-						
13.6) Navigation SSI Increment 8 Production Gyroscope																																				
9		2016	NAVY	50	-	50																								50						
9		2017	NAVY	50	-	50																								50						
15) SSI Increment 11																																				
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																																				
10		2013	NAVY	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		2						
10		2014	NAVY	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		1						
10		2015	NAVY	9	-	9																								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 / 04 / 4												P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip										Aggregated Items: Strategic Missile Systems Equip									

Items (Units in Each)						Fiscal Year 2015														Fiscal Year 2016														B A L A N C E									
O C C O	M F R #	F Y	S E R V I C E	P R O C Q T Y	A C C E P T P R I O R T O 1 O C T 2 0 1 4	B A L D U E A S O F 1 O C T	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													
	10	2017	NAVY	2	-	2	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	2
							T	V	C	N	B	R	R	Y	N	L	G	P	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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 4	P-1 Line Item Number / Title: 5358 / Strategic Missile Systems Equip	Aggregated Items: Strategic Missile Systems Equip
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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) Other Material Support- Launcher and Handling Equipment																																	
1.3) Launch Tube Closures																																	
2		2012	NAVY	19	19	-																								-			
2		2014	NAVY	18	18	-																								-			
2		2015	NAVY	18	-	18	-	-	-	-	-	2	2	2	2	2	2	2	2											-			
1.4) Ballast Production																																	
3		2017	NAVY	15	-	15																								-			
10) SSI Increment 1																																	
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																																	
Prior Years Deliveries: 9																																	
4		2013	NAVY	3	3	-																								-			
12) SSI Increment 4																																	
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																																	
5		2013	NAVY	11	11	-																								-			
5		2014	NAVY	10	10	-																								-			
12.9) Fire Control SSI Increment 4 SPALT Kit Production																																	
6		2012	NAVY	6	6	-																								-			
6		2013	NAVY	10	10	-																								-			
6		2014	NAVY	4	-	4	-	-	-	1	1	1	1																	-			
6		2015	NAVY	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-			
13) SSI Increment 8																																	
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																																	
7		2014	NAVY	30	30	-																								-			
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																																	
8		2014	NAVY	8	8	-																								-			
13.6) Navigation SSI Increment 8 Production Gyroscope																																	
9		2016	NAVY	50	-	50	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	-			
9		2017	NAVY	50	-	50																								20			
15) SSI Increment 11																																	
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																																	
10		2013	NAVY	2	-	2	1	1																						-			
10		2014	NAVY	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		-			
10		2015	NAVY	9	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

Items <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	
	10	2017	NAVY	2	-	2		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S		
							C	O	E	A	E	A	P	A	U	U	U	E	C	O	V	E	A	E	A	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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

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
1) Other Material Support- Launcher and Handling Equipment																															
1.3) Launch Tube Closures																															
2		2012	NAVY	19	19	-																							-		
2		2014	NAVY	18	18	-																							-		
2		2015	NAVY	18	18	-																							-		
1.4) Ballast Production																															
3		2017	NAVY	15	15	-																							-		
10) SSI Increment 1																															
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																															
Prior Years Deliveries: 9																															
4		2013	NAVY	3	3	-																							-		
12) SSI Increment 4																															
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																															
5		2013	NAVY	11	11	-																							-		
5		2014	NAVY	10	10	-																							-		
12.9) Fire Control SSI Increment 4 SPALT Kit Production																															
6		2012	NAVY	6	6	-																							-		
6		2013	NAVY	10	10	-																							-		
6		2014	NAVY	4	4	-																							-		
6		2015	NAVY	1	1	-																							-		
13) SSI Increment 8																															
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																															
7		2014	NAVY	30	30	-																							-		
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																															
8		2014	NAVY	8	8	-																							-		
13.6) Navigation SSI Increment 8 Production Gyroscope																															
9		2016	NAVY	50	50	-																							-		
9		2017	NAVY	50	30	20	5	5	5	5																			-		
15) SSI Increment 11																															
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																															
10		2013	NAVY	2	2	-																							-		
10		2014	NAVY	1	1	-																							-		
10		2015	NAVY	9	-	9	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

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					
	10	2017	NAVY	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
							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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

Items <i>(Units in Each)</i>					Fiscal Year 2021													Fiscal Year 2022													BALANCE		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021													Calendar Year 2022													
							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) Other Material Support- Launcher and Handling Equipment																																	
1.3) Launch Tube Closures																																	
2		2012	NAVY	19	19	-																											
2		2014	NAVY	18	18	-																											
2		2015	NAVY	18	18	-																											
1.4) Ballast Production																																	
3		2017	NAVY	15	15	-																											
10) SSI Increment 1																																	
10.1) SSI Increment #1 Production (SHIPALT/SPALT)																																	
Prior Years Deliveries: 9																																	
4		2013	NAVY	3	3	-																											
12) SSI Increment 4																																	
12.4) Navigation SSI Increment 4 Electronic SPALT Kits																																	
5		2013	NAVY	11	11	-																											
5		2014	NAVY	10	10	-																											
12.9) Fire Control SSI Increment 4 SPALT Kit Production																																	
6		2012	NAVY	6	6	-																											
6		2013	NAVY	10	10	-																											
6		2014	NAVY	4	4	-																											
6		2015	NAVY	1	1	-																											
13) SSI Increment 8																																	
13.1) Navigation SSI Increment 8 Pre-Production Gyroscope																																	
7		2014	NAVY	30	30	-																											
13.2) Navigation SSI Increment 8 Pre-Production Inertial Navigation System																																	
8		2014	NAVY	8	8	-																											
13.6) Navigation SSI Increment 8 Production Gyroscope																																	
9		2016	NAVY	50	50	-																											
9		2017	NAVY	50	50	-																											
15) SSI Increment 11																																	
15.5) Launcher SSI Increment 11 Firing Units/Launch Safing Units																																	
10		2013	NAVY	2	2	-																											
10		2014	NAVY	1	1	-																											
10		2015	NAVY	9	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 / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems Equip

Items <i>(Units in Each)</i>						Fiscal Year 2021												Fiscal Year 2022												BALANCE										
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2020	BAL DUE AS OF 1 OCT	Calendar Year 2021												Calendar Year 2022																					
							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									
	10	2017	NAVY	2	-	2	-	1	1																														-	

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 4 **P-1 Line Item Number / Title:** 5358 / Strategic Missile Systems Equip **Aggregated Items:** Strategic Missile Systems 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	NORTHROP GRUMMAN (Launch Tube Closures) - Sunnyvale, CA	17	24	36	-	2	24	26	-	2	24	26
2	Lockheed Martin - Sunnyvale, CA	15	20	25	-	6	-	6	-	6	-	6
3	General Dynamics(SS1 Increment #1 Production (SHIPALT/SPALT)) - Pittsfield, MA	1	12	24	-	2	24	26	-	2	24	26
4	Lockheed Martin (SSI Increment #4 Navigation Electronic SPALT Kits) - Mitchfield, NY	10	10	12	-	2	24	26	-	2	24	26
5	General Dynamics (SSI Increment #4 MOD 6 Refresh SPALT Kit Production) - Pittsfield, MA	1	12	24	-	2	24	26	-	2	24	26
6	Lockheed Martin (SSI Increment #8 EDM Gyroscope) - Mitchfield, NY	30	36	48	-	-	12	12	-	-	12	12
7	Lockheed Martin (SSI Increment #8 EDM Inertial Navigation System (INS)) - Mitchfield, NY	8	12	24	-	-	12	12	-	-	12	12
8	Lockheed Martin (SSI Increment #8 Gyroscope) - Mitchfield, NY	15	25	73	-	-	15	15	-	-	15	15
9	NORTHROP GRUMMAN (LIS Firing Units (FUs)/ Launch Safing Units (LSUs) - Sunnyvale, CA	1	12	24	-	2	24	26	-	2	24	26

"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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment	P-1 Line Item Number / Title: 5420 / SSN Combat 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: 0604562N
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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>)	857.698	60.767	96.040	130.715	-	130.715	124.168	149.081	207.538	252.742	34.036	1,912.785
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	857.698	60.767	96.040	130.715	-	130.715	124.168	149.081	207.538	252.742	34.036	1,912.785
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	857.698	60.767	96.040	130.715	-	130.715	124.168	149.081	207.538	252.742	34.036	1,912.785

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

Initial Spares (<i>\$ in Millions</i>)	-	2.034	2.667	1.771	-	1.771	3.271	1.275	1.654	1.685	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

VB011 - COMBAT SYSTEMS TECHNOLOGY REFRESH / LEGACY INTEGRATION

Procures tactical control hardware upgrades to SSN688, SSN688I, SSBN, SSN 21, and SSGN Class submarines for legacy combat control systems. These updates provide accelerated delivery of tactical capability to the fleet and bridge the gap between legacy combat control systems and AN/BYG-1. Procures Engineering Changes (EC) and Ordnance Alterations (ORDALT) to correct fleet reported problems with legacy Combat Control System software and hardware. Procures Weapons Launch System, Multi-tube Weapon System (MTWS) and provides support for fleet introduction of the Common Weapon Launcher (CWL) transition and integration into the TI/APB process. Provides system engineering in support of Tactical Local Area Network (TacLAN); Information Assurance (IA); Onboard Team Trainer (OBTT); and Command, Control, Computer and Intelligence Maintenance Tool (C3IMT).

VB034 - SUBMARINE COMBAT CONTROL SYSTEM MODERNIZATION PROGRAM

This cost code procures hardware and software upgrades for the AN/BYG-1 system for installation on all submarine platforms. The AN/BYG-1 is the combat control system common across all submarine platforms which incorporates tactical control, weapon control and Tactical Local Area Network (TacLAN) functions into a single procurement program. AN/BYG-1 allows the submarine Navy to rapidly update the ship safety tactical picture, integrates the common tactical picture into the battlegroup, improves torpedo interfaces and provides tactical TOMAHAWK capability. AN/BYG-1 systems will be continuously updated with hardware enhancements to address COTS obsolescence and capability improvements as defined by the Advanced Processor Build (APB) process. These updates are referred to as Tech Insertion (TI) kits and are differentiated by year of development (i.e. T110, T112, etc). The TI upgrades provide the baseline for all future AN/BYG-1 procurements. In addition, this budget also provides tech insertion "kits" to update existing AN/BYG-1 platforms. The AN/BYG-1 nomenclature was adopted in FY05 and out to incorporate the addition of Virginia Class Combat Control System to a common acquisition and development strategy. This allows for AN/BYG-1 to be the common combat control system nomenclature across all submarine platforms. Funds are for the installation of Combat Control System equipment included in the Fleet Modernization Program.

VB800 - ELECTRONIC CHARTING DISPLAY INFORMATION SYSTEM

The AN/BPS-15/16 Radar with Submarine Electronic Charting Display Information System - Navy (ECDIS-N) is installed on all U.S. Navy submarine platforms. Program responsibilities for components associated with the AN/BPS-15/16, specifically the mast, mast components and hydraulic support systems as well as the unique submarine specific navigation requirements have been transferred from Program Executive Office, Integrated Warfare Systems (PEO IWS) Above Water Sensors Directorate [Line Item Number 0670] to Program Executive Office Submarines (PEO SUB) to more closely align AN/BPS-15/16 and Submarine ECDIS-N with the other Submarine Combat Systems and address shortfalls in both radar and ECDIS-N. PEO SUB Submarine Combat and Weapons Control Program Office assumed program acquisition, contractual, financial, engineering and logistical responsibilities [under Line Item Number 5420] for submarine ECDIS-N systems that are part of the AN/BPS-15/16 Radar System in support of all baselines. This will include conducting submarine Voyage Management System (VMS) 8.3.4 and VMS 9.3 integration, testing, ECDIS-N certification, and fielding responsibilities in support of all baselines.

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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment		P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604562N
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	

This is a zero sum transfer from Budget Line Item 0670, Item Number GW038 to Budget Line Item 5420, Item Number VB800.

VB995 PRODUCTION ENGINEERING AND INITIAL TRAINING - This cost code procures production and logistics support, assistance for asset management, cost analyses, preparation of contract specifications, monitoring of contract deliverables, contractor cost, schedule and performance monitoring, Integrated Logistics Support (ILS) planning and Government Furnished Information (GFI) coordination. This cost code also provides initial training curriculum development, training management materials, exercise control group development, and pilot services to the Fleet.

VB997 - SSGN SUSTAINING SUPPORT

The SSP funding provides for the procurement, installation and sustainment of equipment required for the life-cycle operational support of SSGN Attack Weapons Systems (AWS) for the four OHIO-class SSGNs. OPN sustaining support funding provides for SSGN AWS logistics acquisition support and for Attack Weapon Control System (AWCS) alterations that provide technical refresh updates to the AWCS and to two shore-based trainers located at Kings Bay, GA and Bangor, WA. The AWCS alterations will provide technical refresh upgrades to include the Tactical TOMAHAWK Weapon Control Systems (TTWCS) 5.4.0.2 and TOMAHAWK Command and Control System (TC2S 5.0.1) software necessary to ensure the long-term safety, reliability and maintainability of the Attack Weapons Control System. TTWCS 5.4.0.2 and TC2S 5.0.1 software are required for the SSGN Strike Operations to continue the Fleet's mission. Due to fiscal constraints within the Department the decision was made to only budget for the latest TTWCS 5.4.0.2 update. The TTWCS update is critical to the ability to fire Tomahawk missiles from the SSGNs.

VB700 - PAYLOAD PROCUREMENT

Procurement of COTS/GOTS payloads for integration, verification, and validation.

OTHER INFORMATION

Developmental efforts are funded by Program Element 0604562N within the SSN Combat Control System Improvement Program F0236.

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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment

P-1 Line Item Number / Title:
5420 / SSN Combat Control Systems

ID Code (A=Service Ready, B=Not Service Ready): A **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0604562N

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 Combat Control Systems			- / 342.425	- / 19.005	- / 35.678	- / 41.669	- / -	- / 41.669
P-3a	1 / VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS (UPGRADE)			- / 305.249	- / -	- / -	- / -	- / -	- / -
P-3a	2 / VB034 SSBN MODERNIZATION WITH AN/BYG-1 (UPGRADE)			- / 0.000	- / -	- / 8.348	- / 25.597	- / -	- / 25.597
P-3a	3 / VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS (UPGRADE)			- / 61.153	- / 1.705	- / -	- / 7.040	- / -	- / 7.040
P-3a	4 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS (UPGRADE)			- / 22.053	- / -	- / -	- / -	- / -	- / -
P-3a	5 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS (UPGRADE)			- / 13.250	- / -	- / 3.024	- / 7.424	- / -	- / 7.424
P-3a	6 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS (UPGRADE)			- / 113.568	- / 40.057	- / 35.158	- / 17.286	- / -	- / 17.286
P-3a	7 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS (UPGRADE)			- / 0.000	- / -	- / 13.832	- / 31.699	- / -	- / 31.699
P-3a	8 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL (TBD)			- / 0.000	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 857.698	- / 60.767	- / 96.040	- / 130.715	- / -	- / 130.715

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-40a	SSN Combat Control Systems			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS (UPGRADE)			- / -	- / -	- / -	- / -	- / -	- / 305.249
P-3a	2 / VB034 SSBN MODERNIZATION WITH AN/BYG-1 (UPGRADE)			- / 32.631	- / 28.867	- / 27.137	- / 24.940	- / 6.812	- / 154.332
P-3a	3 / VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS (UPGRADE)			- / 1.802	- / -	- / -	- / -	- / -	- / 71.700
P-3a	4 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS (UPGRADE)			- / -	- / 6.375	- / 11.219	- / 4.716	- / -	- / 44.363
P-3a	5 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS (UPGRADE)			- / 7.566	- / 4.517	- / -	- / -	- / -	- / 35.781
P-3a	6 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS (UPGRADE)			- / 21.998	- / 40.195	- / 34.674	- / 15.272	- / -	- / 318.208
P-3a	7 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS (UPGRADE)			- / 28.732	- / 5.515	- / 14.928	- / 18.678	- / 3.750	- / 117.134
P-3a	8 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL (TBD)			- / -	- / -	- / 45.547	- / 102.830	- / 23.474	- / 171.851
P-40	Total Gross/Weapon System Cost			- / 124.168	- / 149.081	- / 207.538	- / 252.742	- / 34.036	- / 1,912.785

*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. 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-40, Budget Line Item Justification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N: Other Procurement, Navy / BA 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment		P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: 0604562N
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 / 04 / 5						P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems						Aggregated Items Title: SSN Combat Control 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 (\$)	Qty (Each)	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) VB011: COMBAT SYSTEM TECH REFRESH/LEGACY INTEGRATION																				
1.1) VB011: Prior Years	A		-	-	13.416	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.2) VB011: ECP/ AUXILLARY EQUIPMENT / LEGACY INTEGRATION	A		-	-	2.434	-	-	1.005	-	-	2.151	-	-	2.155	-	-	-	-	-	2.155
1.3) VB011: WEAPON LAUNCH SYSTEMS TECH INSERTION (1)	A		-	-	8.393	-	-	5.888	-	-	9.860	-	-	15.974	-	-	-	-	-	15.974
1.4) VB011: TACLAN/ IA	A		-	-	95.924	-	-	10.280	-	-	12.277	-	-	17.421	-	-	-	-	-	17.421
Subtotal: 1) VB011: COMBAT SYSTEM TECH REFRESH/LEGACY INTEGRATION			-	-	120.167	-	-	17.173	-	-	24.288	-	-	35.550	-	-	-	-	-	35.550
2) VB800: ELECTRONIC CHARTING DISPLAY INFORMATION SYSTEM																				
2.1) VB800: ELECTRONIC CHARTING DISPLAY INFORMATION SYSTEM	A		-	-	-	-	-	-	-	-	3.053	-	-	3.095	-	-	-	-	-	3.095
Subtotal: 2) VB800: ELECTRONIC CHARTING DISPLAY INFORMATION SYSTEM			-	-	0.000	-	-	-	-	-	3.053	-	-	3.095	-	-	-	-	-	3.095
3) VB995: PRODUCTION ENGINEERING AND INITIAL TRAINING																				
3.1) VB995: PRODUCTION ENGINEERING AND INITIAL TRAINING	A		-	-	56.970	-	-	1.627	-	-	1.658	-	-	1.688	-	-	-	-	-	1.688
Subtotal: 3) VB995: PRODUCTION ENGINEERING AND INITIAL TRAINING			-	-	56.970	-	-	1.627	-	-	1.658	-	-	1.688	-	-	-	-	-	1.688
4) VB997: SSGN SUSTAINING SUPPORT																				
4.1) VB997: SSGN SUSTAINING SUPPORT	A		-	-	59.552	-	-	0.205	-	-	6.679	-	-	0.912	-	-	-	-	-	0.912
Subtotal: 4) VB997: SSGN SUSTAINING SUPPORT			-	-	59.552	-	-	0.205	-	-	6.679	-	-	0.912	-	-	-	-	-	0.912
5) VB034: TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN688 CLASS																				
5.1) VB034: TECHNOLOGY INSERTION (TI00/ TI02 BASELINE) SSN688 CLASS	A		7,017K	14	98.236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5 **P-1 Line Item Number / Title:** 5420 / SSN Combat Control Systems **Aggregated Items Title:** SSN Combat Control 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 (\$)	Qty (Each)	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: 5) VB034: TECHNOLOGY INSERTION (T100/T102 BASELINE) SSN688 CLASS			-	-	98.236	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6) VBG86: NAVAL INTELLIGENCE FUSION TOOL (NIFT) NIFT PROCUREMENT																				
6.1) VBG86: NAVAL INTELLIGENCE FUSION TOOL (NIFT) NIFT PROCUREMENT	A		2,500K	3	7.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 6) VBG86: NAVAL INTELLIGENCE FUSION TOOL (NIFT) NIFT PROCUREMENT			-	-	7.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7) VB700: PAYLOAD PROCUREMENT																				
7.1) VB700: PAYLOAD PROCUREMENT	A		-	-	-	-	-	-	-	-	-	-	-	0.424	-	-	-	-	-	0.424
Subtotal: 7) VB700: PAYLOAD PROCUREMENT			-	-	0.000	-	-	-	-	-	-	-	-	0.424	-	-	-	-	-	0.424
Total			-	-	342.425	-	-	19.005	-	-	35.678	-	-	41.669	-	-	-	-	-	41.669

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

Footnotes:

⁽¹⁾ 1.3 The first of the Block III Virginia Class submarines will be going into service in FY16. This funding includes the sustainment of the Common Weapon Launcher (CWL) for Block III. Also includes the obsolescence management for Weapon Launcher Console Integrated Enclosure (WLCIE) on Virginia Blocks I and II. 1.4 FY17 efforts include transition of TACLAN to Common Infrastructure Services (CIS) which consolidates common functions used by multiple subsystems. Also includes funding to field cybersecurity improvements to meet new, more stringent requirements.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 1 / VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS				

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>	305.249	-	-	-	-	-	-	-	-	-	-	305.249
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	305.249	-	-	-	-	-	-	-	-	-	-	305.249
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	305.249	-	-	-	-	-	-	-	-	-	-	305.249
<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:

This program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software. Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 1 / VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS

Models of Systems Affected: VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS	Modification Type: UPGRADE	Related RDT&E PEs: 0604562N
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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> VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS												
B Kits												
Recurring												
1.1.1) EQUIPMENT - NonOrganic	27 / 135.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 135.825
<i>Subtotal: Recurring</i>	- / 135.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 135.825
<i>Subtotal: VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS</i>	27 / 135.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 135.825
<i>Subtotal: Procurement, All Modification Items</i>	- / 135.825	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 135.825
Installation												
<i>Modification Item 1 of 1:</i> VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS	- / 169.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 169.424
<i>Subtotal: Installation</i>	- / 169.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 169.424
Total												
Total Cost (Procurement + Support + Installation)	305.249	-	-	-	-	-	-	-	-	-	-	305.249

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 1 / VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS

Modification Item 1 of 1: VB034 AN/BYG-1 TI-04 AND LATER SYSTEMS SSN 688 CLASS

Manufacturer Information

Manufacturer Name: Various				Manufacturer Location: Various			
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: 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	27 / 169.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	27 / 169.424
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	27 / 169.424	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	27 / 169.424

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

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 2 / VB034 SSBN MODERNIZATION WITH AN/BYG-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>)	0.000	-	8.348	25.597	-	25.597	32.631	28.867	27.137	24.940	6.812	154.332
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	8.348	25.597	-	25.597	32.631	28.867	27.137	24.940	6.812	154.332
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	8.348	25.597	-	25.597	32.631	28.867	27.137	24.940	6.812	154.332
<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:

SSBN 726 Class Submarines will be modernized from the CCS MK2 BLOCK 1C system to the TI/APB model.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5					P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems					Modification Number / Title: 2 / VB034 SSBN MODERNIZATION WITH AN/BYG-1			
Models of Systems Affected: SSBN CLASS				Modification Type: UPGRADE				Related RDT&E PEs: 0604562N					
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: VB034 SSBN MODERNIZATION WITH AN/BYG-1</i>													
B Kits													
Recurring													
1.1.1) EQUIPMENT - NonOrganic	- / -	- / -	2 / 8.348	3 / 12.747	- / -	3 / 12.747	3 / 12.990	2 / 8.833	3 / 13.514	1 / 4.505	- / -	14 / 60.937	
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 8.348	- / 12.747	- / -	- / 12.747	- / 12.990	- / 8.833	- / 13.514	- / 4.505	- / -	- / 60.937	
<i>Subtotal: VB034 SSBN MODERNIZATION WITH AN/BYG-1</i>	- / -	- / -	2 / 8.348	3 / 12.747	- / -	3 / 12.747	3 / 12.990	2 / 8.833	3 / 13.514	1 / 4.505	- / -	14 / 60.937	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 8.348	- / 12.747	- / -	- / 12.747	- / 12.990	- / 8.833	- / 13.514	- / 4.505	- / -	- / 60.937	
Installation													
<i>Modification Item 1 of 1: VB034 SSBN MODERNIZATION WITH AN/BYG-1</i>													
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 12.850	- / -	- / 12.850	- / 19.641	- / 20.034	- / 13.623	- / 20.435	- / 6.812	- / 93.395	
Total													
Total Cost (Procurement + Support + Installation)	0.000	-	8.348	25.597	-	25.597	32.631	28.867	27.137	24.940	6.812	154.332	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 2 / VB034 SSBN MODERNIZATION WITH AN/BYG-1

Modification Item 1 of 1: VB034 SSBN MODERNIZATION WITH AN/BYG-1

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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	Mar 2017	Mar 2018	Mar 2019	Mar 2020	
Delivery Dates		Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021	

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	- / -	- / -	- / -	2 / 12.850	- / -	2 / 12.850	- / -	- / -	- / -	- / -	- / -	2 / 12.850
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	3 / 19.641	- / -	- / -	- / -	- / -	3 / 19.641
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 20.034	- / -	- / -	- / -	3 / 20.034
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 13.623	- / -	- / -	2 / 13.623
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 20.435	- / -	3 / 20.435
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 6.812	1 / 6.812
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 12.850	- / -	2 / 12.850	3 / 19.641	3 / 20.034	2 / 13.623	3 / 20.435	1 / 6.812	14 / 93.395

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	1	1	-	1	1	-	-	1	1	1	-	1	14
Out	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	1	-	1	1	1	-	1	1	-	-	1	1	1	1	14

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 3 / VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS				

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>)	61.153	1.705	-	7.040	-	7.040	1.802	-	-	-	-	71.700
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	61.153	1.705	-	7.040	-	7.040	1.802	-	-	-	-	71.700
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	61.153	1.705	-	7.040	-	7.040	1.802	-	-	-	-	71.700
<i>(The following Resource Summary rows are for 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 program will provide upgrades for submarine combat systems with upgraded combat control and tactical control hardware and software. This program funds the procurement and installation of the first Virginia Class upgrade and, beginning in FY10, installation of the second and third upgrade kits as well as procurement and installation of all subsequent Virginia Class AN/BYG-1 upgrade kits. Milestone Decision Authority (MDA) Production Reviews are being held on an annual basis.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 3 / VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS

Models of Systems Affected: TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS	Modification Type: UPGRADE	Related RDT&E PEs: 0604562N
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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: VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS												
B Kits												
Recurring												
1.1.1) EQUIPMENT - NonOrganic	9 / 47.943	- / -	- / -	1 / 7.040	- / -	1 / 7.040	- / -	- / -	- / -	- / -	- / -	10 / 54.983
<i>Subtotal: Recurring</i>	- / 47.943	- / -	- / -	- / 7.040	- / -	- / 7.040	- / -	- / -	- / -	- / -	- / -	- / 54.983
<i>Subtotal: VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS</i>	9 / 47.943	- / -	- / -	1 / 7.040	- / -	1 / 7.040	- / -	- / -	- / -	- / -	- / -	10 / 54.983
<i>Subtotal: Procurement, All Modification Items</i>	- / 47.943	- / -	- / -	- / 7.040	- / -	- / 7.040	- / -	- / -	- / -	- / -	- / -	- / 54.983

Installation

Modification Item 1 of 1: VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS	- / 13.210	- / 1.705	- / -	- / -	- / -	- / -	- / 1.802	- / -	- / -	- / -	- / -	- / 16.717
<i>Subtotal: Installation</i>	- / 13.210	- / 1.705	- / -	- / -	- / -	- / -	- / 1.802	- / -	- / -	- / -	- / -	- / 16.717

Total												
Total Cost (Procurement + Support + Installation)	61.153	1.705	-	7.040	-	7.040	1.802	-	-	-	-	71.700

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 3 / VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS

Modification Item 1 of 1: VB034 TECHNOLOGY INSERTION (TI00/TI02 BASELINE) SSN774 CLASS

Manufacturer Information

Manufacturer Name: Various				Manufacturer Location: Various			
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: 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 / 13.210	1 / 1.705	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	9 / 14.915
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 1.802	- / -	- / -	- / -	- / -	1 / 1.802
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	8 / 13.210	1 / 1.705	- / -	- / -	- / -	- / -	1 / 1.802	- / -	- / -	- / -	- / -	10 / 16.717

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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Out	8	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 4 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS				

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>)	22.053	-	-	-	-	-	-	6.375	11.219	4.716	-	44.363
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	22.053	-	-	-	-	-	-	6.375	11.219	4.716	-	44.363
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	22.053	-	-	-	-	-	-	6.375	11.219	4.716	-	44.363
<i>(The following Resource Summary rows are for 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 program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software. Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5					P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems					Modification Number / Title: 4 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS			
Models of Systems Affected: UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS					Modification Type: UPGRADE					Related RDT&E PEs: 0604562N			
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> VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS													
B Kits													
Recurring													
1.1.1) EQUIPMENT - NonOrganic	4 / 10.912	- / -	- / -	- / -	- / -	- / -	- / -	2 / 6.375	2 / 6.503	- / -	- / -	8 / 23.790	
<i>Subtotal: Recurring</i>	- / 10.912	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.375	- / 6.503	- / -	- / -	- / 23.790	
<i>Subtotal: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS</i>	4 / 10.912	- / -	- / -	- / -	- / -	- / -	- / -	2 / 6.375	2 / 6.503	- / -	- / -	8 / 23.790	
<i>Subtotal: Procurement, All Modification Items</i>	- / 10.912	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.375	- / 6.503	- / -	- / -	- / 23.790	
Installation													
<i>Modification Item 1 of 1:</i> VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS	- / 11.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.716	- / 4.716	- / -	- / 20.573	
<i>Subtotal: Installation</i>	- / 11.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 4.716	- / 4.716	- / -	- / 20.573	
Total													
Total Cost (Procurement + Support + Installation)	22.053	-	-	-	-	-	-	6.375	11.219	4.716	-	44.363	

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 4 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSGN CLASS

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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 2019	Mar 2020	Mar 2021
Delivery Dates					Mar 2020	Mar 2021	Mar 2022

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	4 / 11.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	4 / 11.141
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.716	- / -	- / -	2 / 4.716
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.716	- / -	2 / 4.716
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	4 / 11.141	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 4.716	2 / 4.716	- / -	8 / 20.573

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	-	-	1	1	-	-	-	-	8	
Out	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	-	-	8

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 5 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS				

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>)	13.250	-	3.024	7.424	-	7.424	7.566	4.517	-	-	-	35.781
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	13.250	-	3.024	7.424	-	7.424	7.566	4.517	-	-	-	35.781
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	13.250	-	3.024	7.424	-	7.424	7.566	4.517	-	-	-	35.781
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

This program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software. Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 5 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS

Models of Systems Affected: UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS	Modification Type: UPGRADE	Related RDT&E PEs: 0604562N
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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> VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS												
B Kits												
Recurring												
1.1.1) EQUIPMENT - NonOrganic	3 / 7.305	- / -	1 / 3.024	1 / 3.078	- / -	1 / 3.078	1 / 3.137	- / -	- / -	- / -	- / -	6 / 16.544
<i>Subtotal: Recurring</i>	- / 7.305	- / -	- / 3.024	- / 3.078	- / -	- / 3.078	- / 3.137	- / -	- / -	- / -	- / -	- / 16.544
<i>Subtotal: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS</i>	3 / 7.305	- / -	1 / 3.024	1 / 3.078	- / -	1 / 3.078	1 / 3.137	- / -	- / -	- / -	- / -	6 / 16.544
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.305	- / -	- / 3.024	- / 3.078	- / -	- / 3.078	- / 3.137	- / -	- / -	- / -	- / -	- / 16.544
Installation												
<i>Modification Item 1 of 1:</i> VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS	- / 5.945	- / -	- / -	- / 4.346	- / -	- / 4.346	- / 4.429	- / 4.517	- / -	- / -	- / -	- / 19.237
<i>Subtotal: Installation</i>	- / 5.945	- / -	- / -	- / 4.346	- / -	- / 4.346	- / 4.429	- / 4.517	- / -	- / -	- / -	- / 19.237
Total												
Total Cost (Procurement + Support + Installation)	13.250	-	3.024	7.424	-	7.424	7.566	4.517	-	-	-	35.781

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 5 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN21 CLASS

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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	Mar 2017	Mar 2018			
Delivery Dates		Mar 2017	Mar 2018	Mar 2019			

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 / 5.945	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 5.945
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	1 / 4.346	- / -	1 / 4.346	- / -	- / -	- / -	- / -	- / -	1 / 4.346
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.429	- / -	- / -	- / -	- / -	1 / 4.429
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 4.517	- / -	- / -	- / -	1 / 4.517
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 5.945	- / -	- / -	1 / 4.346	- / -	1 / 4.346	1 / 4.429	1 / 4.517	- / -	- / -	- / -	6 / 19.237

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	3	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Out	3	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-

UNCLASSIFIED

Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 6 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS				

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>)	113.568	40.057	35.158	17.286	-	17.286	21.998	40.195	34.674	15.272	-	318.208
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	113.568	40.057	35.158	17.286	-	17.286	21.998	40.195	34.674	15.272	-	318.208
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	113.568	40.057	35.158	17.286	-	17.286	21.998	40.195	34.674	15.272	-	318.208
<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:

This program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software. Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems						Modification Number / Title: 6 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS			
Models of Systems Affected: UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS				Modification Type: UPGRADE				Related RDT&E PEs: 0604562N					
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: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS</i>													
B Kits													
Recurring													
2.1.1) EQUIPMENT - NonOrganic	25 / 67.041	6 / 17.838	6 / 18.177	- / -	- / -	- / -	7 / 21.998	6 / 19.233	5 / 16.348	- / -	- / -	55 / 160.635	
<i>Subtotal: Recurring</i>	- / 67.041	- / 17.838	- / 18.177	- / -	- / -	- / -	- / 21.998	- / 19.233	- / 16.348	- / -	- / -	- / 160.635	
<i>Subtotal: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS</i>	25 / 67.041	6 / 17.838	6 / 18.177	- / -	- / -	- / -	7 / 21.998	6 / 19.233	5 / 16.348	- / -	- / -	55 / 160.635	
<i>Subtotal: Procurement, All Modification Items</i>	- / 67.041	- / 17.838	- / 18.177	- / -	- / -	- / -	- / 21.998	- / 19.233	- / 16.348	- / -	- / -	- / 160.635	
Installation													
<i>Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS</i>													
<i>Subtotal: Installation</i>	- / 46.527	- / 22.219	- / 16.981	- / 17.286	- / -	- / 17.286	- / -	- / 20.962	- / 18.326	- / 15.272	- / -	- / 157.573	
Total													
Total Cost (Procurement + Support + Installation)	113.568	40.057	35.158	17.286	-	17.286	21.998	40.195	34.674	15.272	-	318.208	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 6 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN688 CLASS

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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		Mar 2018	Mar 2019	Mar 2020	
Delivery Dates	Mar 2016	Mar 2017		Mar 2019	Mar 2020	Mar 2021	

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	17 / 46.527	8 / 22.219	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	25 / 68.746
FY 2015	- / -	- / -	6 / 16.981	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 16.981
FY 2016	- / -	- / -	- / -	6 / 17.286	- / -	6 / 17.286	- / -	- / -	- / -	- / -	- / -	6 / 17.286
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	7 / 20.962	- / -	- / -	- / -	7 / 20.962
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 18.326	- / -	- / -	6 / 18.326
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	5 / 15.272	- / -	5 / 15.272
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	17 / 46.527	8 / 22.219	6 / 16.981	6 / 17.286	- / -	6 / 17.286	- / -	7 / 20.962	6 / 18.326	5 / 15.272	- / -	55 / 157.573

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	2	2	2	2	2	2	2	-	2	2	2	-	-	-	-	-	2	3	2	-	1	2	3	-	-	2	3	-	-	-	55
Out	17	-	2	2	2	2	2	2	2	-	2	2	2	-	-	-	-	-	2	3	2	-	1	2	3	-	-	2	3	-	-	55

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 7 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS				

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	-	13.832	31.699	-	31.699	28.732	5.515	14.928	18.678	3.750	117.134
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.000	-	13.832	31.699	-	31.699	28.732	5.515	14.928	18.678	3.750	117.134
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.000	-	13.832	31.699	-	31.699	28.732	5.515	14.928	18.678	3.750	117.134
<i>(The following Resource Summary rows are for 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 program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software. Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 7 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS

Models of Systems Affected: UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS	Modification Type: UPGRADE	Related RDT&E PEs: 0604562N
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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: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS												
B Kits												
Recurring												
1.1.1) EQUIPMENT - NonOrganic	- / -	- / -	2 / 13.832	4 / 28.162	- / -	4 / 28.162	3 / 21.523	- / -	2 / 14.928	2 / 14.928	- / -	13 / 93.373
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / 13.832	- / 28.162	- / -	- / 28.162	- / 21.523	- / -	- / 14.928	- / 14.928	- / -	- / 93.373
<i>Subtotal: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS</i>	- / -	- / -	2 / 13.832	4 / 28.162	- / -	4 / 28.162	3 / 21.523	- / -	2 / 14.928	2 / 14.928	- / -	13 / 93.373
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / 13.832	- / 28.162	- / -	- / 28.162	- / 21.523	- / -	- / 14.928	- / 14.928	- / -	- / 93.373

Installation

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS	- / 0.000	- / -	- / -	- / 3.537	- / -	- / 3.537	- / 7.209	- / 5.515	- / -	- / 3.750	- / 3.750	- / 23.761
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 3.537	- / -	- / 3.537	- / 7.209	- / 5.515	- / -	- / 3.750	- / 3.750	- / 23.761

Total

Total Cost (Procurement + Support + Installation)	0.000	-	13.832	31.699	-	31.699	28.732	5.515	14.928	18.678	3.750	117.134
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 7 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS

Manufacturer Information

Manufacturer Name: Various				Manufacturer Location: Various			
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	Mar 2017	Mar 2018		Mar 2020	Mar 2021
Delivery Dates		Mar 2017	Mar 2018	Mar 2019		Mar 2021	Mar 2022

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	- / -	- / -	- / -	2 / 3.537	- / -	2 / 3.537	- / -	- / -	- / -	- / -	- / -	2 / 3.537
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	4 / 7.209	- / -	- / -	- / -	- / -	4 / 7.209
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 5.515	- / -	- / -	- / -	3 / 5.515
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.750	- / -	2 / 3.750
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 3.750	2 / 3.750
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	2 / 3.537	- / -	2 / 3.537	4 / 7.209	3 / 5.515	- / -	2 / 3.750	2 / 3.750	13 / 23.761

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	1	1	-	-	-	-	-	1	1	-	-	2	13
Out	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	2	1	-	1	1	1	-	-	-	-	-	1	1	-	2	13

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5				P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems				Modification Number / Title: 8 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/ CWL				

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	-	-	-	-	-	-	-	45.547	102.830	23.474	171.851
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	45.547	102.830	23.474	171.851
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	-	-	-	-	-	45.547	102.830	23.474	171.851
<i>(The following Resource Summary rows are for 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 program will provide submarine combat control systems with COTS-based upgrades to combat control and tactical control hardware and software and Common Weapon Launcher (CWL). Milestone Decision Authority (MDA) Production Reviews are held on an annual basis.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 8 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/ CWL

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

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL												
B Kits												
Recurring												
1.1.1) EQUIPMENT - NonOrganic	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 45.547	8 / 91.093	- / -	12 / 136.640
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 45.547	- / 91.093	- / -	- / 136.640
<i>Subtotal: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL</i>	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 45.547	8 / 91.093	- / -	12 / 136.640
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 45.547	- / 91.093	- / -	- / 136.640

Installation

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.737	- / 23.474	- / 35.211
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.737	- / 23.474	- / 35.211

Total

Total Cost (Procurement + Support + Installation)	0.000	-	-	-	-	-	-	-	-	45.547	102.830	23.474	171.851
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5420 / SSN Combat Control Systems	Modification Number / Title: 8 / VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/ CWL

Modification Item 1 of 1: VB034 UPGRADES FROM TI04 AND OUT BASELINE SSN774 CLASS W/CWL

Manufacturer Information

Manufacturer Name: Various	Manufacturer Location: Various
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 2020	Mar 2021
Delivery Dates						Mar 2021	Mar 2022

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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 11.737	- / -	4 / 11.737
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	8 / 23.474	8 / 23.474
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	4 / 11.737	8 / 23.474	12 / 35.211

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	-	8	12
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	8	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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment	P-1 Line Item Number / Title: 5429 / ASW 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: 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	7.559	30.189	26.431	-	26.431	23.097	22.490	22.573	23.038	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	7.559	30.189	26.431	-	26.431	23.097	22.490	22.573	23.038	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	7.559	30.189	26.431	-	26.431	23.097	22.490	22.573	23.038	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>)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

ASW SUPPORT EQUIPMENT

For the FY 2015 and follow, all Submarine ASW Support Equipment OPN BLI 5431, Surface ASW Support Equipment OPN BLI 5449, and ASW Range Support Equipment BLI 5455 funding was moved under ASW Support Equipment OPN BLI 5429 for budget consolidation purposes.

Cost Codes VC000/VC830/VC5IN: Funding for modifications and improvements to SSN 688, SSBN 726 and SSN21 classes Attack and Ballistic Missile Submarine weapons launching, stowage and shipping systems, torpedo tube system components and torpedo tube test equipment. These requirements arise as a result of the introduction of new or modified weapons, devices, and sensors and their subsequent evaluation test and operational use. Also procured are reliability, maintainability, functional and safety modifications and tactical improvements resulting from operational use experience. This funding also provides management services required for installations.

Cost Codes VC008/VC009/VC900/VC6IN - SURFACE ASW SUPPORT EQUIPMENT: Funding to procure Reliability, Maintainability and Availability (RM&A) and safety modifications through the Ordnance Alteration (ORDALT) process to Anti-Submarine Warfare (ASW) Fire Control, Surface Vessel Torpedo Tubes (SVTT), and related ASW Fire Control/SVTT support and test equipment to maintain the current envelope. Modification requirements arise as a result of evaluation, testing, and Fleet use of existing, new, or modified ASW weapons and/or related systems and subsystems. Included in this line item are all related procurements for training and simulation equipment required for the continued operation of this equipment. ORDALT procurements are highly variable and dependent on shipboard configurations and equipment age. This line item is coordinated by the Naval Sea Systems Command.

Cost Codes VC001-VC007/VC831/VC832/VC851/VC970 - ASW RANGE SUPPORT EQUIPMENT: ASW range support equipment includes self-propelled surface targets, towed surface targets, and associated target augmentation to mimic threats and/or provide feedback. Self-propelled surface targets include the High Speed Maneuverable Surface Target (HSMST), Fast Attack Craft Target (FACT), and Ship Deployable Surface Target (SDST). Towed surface targets include the Low Cost Modular Target (LCMT) and Polyethylene Tow Target (PETT). Funding is also for the procurement of training range and shore equipment, Test and Evaluation (T&E), acoustic trial range equipment, and weapon system and test equipment. Equipment procured includes instrumentation for US Fleet Operational Readiness Accuracy Check Sites (FORACS) Program, equipment required to conduct fleet exercises at Navy ASW Training ranges for the Underwater Tracking Range Equipment (UTRE)/Pinger Program, and equipment for the Surface Ship Radiated Noise Measurement (SSRNM) Program. Training and T&E ranges include; Southern California Offshore Range (SCORE), Barking Sands Tactical Underwater Range/Barking Sands Underwater Range Extension (BARSTUR/BSURE), Atlantic Underwater Test and Evaluation Center (AUTECE), Nanoose and Dabob Bay. FORACS ranges include; Andros Island and Southern California.

[P40A / VC000 - SUB WEAPONS LAUNCH/HANDLING SUPPORT]: VC000 - SUB WEAPONS LAUNCH/HANDLING SUPPORT

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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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment		P-1 Line Item Number / Title: 5429 / ASW Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>The Submarine Torpedo Tube Support category funds in-service support and alteration procurements for all submarine torpedo tubes (TT), torpedo ejection pumps (TEP), internal countermeasure launchers (ICL), and weapons stowage and handling systems (WSHS). Development efforts under this item number include Engineering Change Proposals, ORDALTs, Type Zero (TZ) kits and Test Equipment and alteration material procurement to correct significant deficiencies in equipment affecting personnel safety, ship safety and system performance.</p> <p>[P40A / VC830 - PRODUCTION ENGINEERING]: VC830 - PRODUCTION ENGINEERING Production engineering includes resolving Liaison Action Requests (LARs) configure/test assembly in lab prior to ship installation and in-shop engineering support of vendor testing.</p> <p>[P40A / VC5IN O/A INSTALLATION]: VC5IN O/A 18000 INSTALL Installing agents will be various Naval Shipyards and contractors. Contracted installations require funding for management of installations during the availabilities. All installations will be on SSBN and SSN688/21 Class Submarines.</p> <p>[P40A - 2 / VC008 - ASWCS FIRE CONTROL ORDALTS]: VC008 Cost Elements/Descriptions as follows: ASWCS - UFCS/Control Panel ORDALTs: Provides funding for ORDALT kits for the ASW Underwater Fire Control System (UFCS) and Control Panel (MK309), ASW Control System (ASWCS) MK116 Mod 7, Torpedo Setting Panel (MK331), and the Torpedo Pre-Setter Test Set (MK432). ORDALT procurements include a MK432 Mod 6 test set which provides for the addition of wide angle display, cable terminations and tech refresh of obsolete motherboard parts. Also provides material support at multiple land-based laboratories as well as material support for upgrades and calibrations. Procurements will ensure laboratories are at Fleet baseline configurations.</p> <p>ASWCS - Production Engineering Support: Provides the necessary production engineering support funds to cover the associated Integrated Logistics Support (ILS) elements, Engineering Change Proposal (ECP) reviews, Engineering Changes (EC), Ship Change Documents (SCDs), and engineering audits for ASW Fire Control. Reviews and approves internal and external system interfaces (hardware and integration related) and identify interface issues.</p> <p>ASWCS - Acceptance Test & Evaluation: Provides the in-house acceptance test and evaluation funding associated with the safety and quality assurance testing of all ASW Fire Control, Alteration Equivalent to Repairs (AERs), ECPs, ECs, and SCDs.</p> <p>[P40A - 2 / VC009 - TORPEDO TUBE ORDALTS]: VC009 Cost Elements/Descriptions as follows: SVTT - MK32 ORDALTS: The SVTT MK32 is an over-the-side torpedo defense surface ship launched system that conducts close-in ASW operations. This line provides funding for SVTT MK32 launchers, Torpedo Loading Trays (TLTs), and ancillary equipment for testing, training, and maintainability on select surface ship combatants. ORDALT procurements include: Emergency Fire Circuit and Mount to Magazine Door Interoperability Circuit Improvements (SVTT MK32 Mod 19 only - ORDALT 76463); Overheat Sensor Test Set (SVTT MK32 Mod 15 Only - ORDALT 412-01-019); Pressure Switch Assembly Replacement (SVTT MK32 All Mods - ORDALT 73191); Torpedo MK54 SVTT Upgrades (SVTT MK32 Mods 14 Only - ORDALT 76008); Breech Mechanism Control Valve Redesign (SVTT MK32 All Mods - ORDALT TBD); Over-Heat Sensor Assembly Modification (SVTT MK32 Mod 15 Only - ORDALT 412-05-015); Training Gear Handcrank Support Improvements (SVTT MK32 Mods 15 Only - ORDALT TBD) and Air Charging Panel Regulator Improvements (SVTT MK32 MOD 15 Only - ORDALT TBD). Procure SVTT shoresite laboratory equipment for Launcher System Facilities (LSF). LSFs are used to simulate shipboard conditions for over-the-side torpedo launchers, as well as for the creation of the required ORDALTs.</p> <p>SVTT - Production Engineering: Provides the necessary production engineering support funds to cover the associated Integrated Logistics Support (ILS) elements, Engineering Change Proposal (ECP) reviews, Engineering Changes (EC), SCDs, and engineering audits for SVTT ORDALTs.</p> <p>SVTT - Acceptance Test & Evaluation: Provides the in-house acceptance test and evaluation funding required for the safety and quality assurance testing of all SVTT ORDALTs, Alteration Equivalent to Repairs (AERs), ECPs, ECs, and SCDs.</p> <p>[P40A - 2 / VC900 - CONSULTING SERVICES]: VC900 Cost Element/Description as Follows:</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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment		P-1 Line Item Number / Title: 5429 / ASW Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Provides the necessary funding for consulting services required to support scheduling of ASW Fire Control and SVTT ORDALT production, test, and installation efforts in conjunction with operation, safety, and environmental requirements.</p> <p>[P40A - 2 / VC6IN - INSTALLATION OF EQUIPMENT - N96]: VC6IN Cost Element/Description as follows:</p> <p>Funds the installation of all ASW Fire Control (under Cost Code 6B001) and SVTT (under Cost Code 6B004) ORDALTs/SCDs. ORDALT/SCD Alteration Installation Team (AIT) pier-side installations are variable and contingent on Type Commander (TYCOM), Ships' Scheduling Conference (SSC), and ships' availability.</p> <p>[P40A - 3 / ASW Range Support Equipment (3)]: ANTI-SUBMARINE WARFARE (ASW) RANGE EQUIPMENT:</p> <p>Funding for self-propelled surface targets, towed surface targets, and associated target augmentation to mimic threats and/or provide feedback. Self-propelled surface targets include the High Speed Maneuverable Surface Target (HSMST), Fast Attack Craft Target (FACT), and Ship Deployable Surface Target (SDST). Towed surface targets include the Low Cost Modular Target (LCMT) and Polyethylene Tow Target (PETT). (Targets)</p> <p>Funding also provides Surface Ship Radiated Noise Measurement (SSRNM) & US Fleet Operational Readiness Accuracy Check Sites (FORACS) test and evaluation capability for surface ships and submarines; Underwater Tracking Range Equipment (UTRE)/Pingers equipment for underwater tracking of units operation on Undersea Warfare (USW) training ranges. (S05)</p> <p>[P40A - 3 / VC001 - Surface Ship Radiated Noise Measurement (SSRNM)/US Fleet Operational Readiness Accuracy Check Sites (FORACS) - N96]: Funding provides for the procurement of range communication systems, ship auto-tracking system, Surface Ship Acoustic Range Equipment, and upgraded ship position tracking system for the Surface Ship Radiated Noise Measurement (SSRNM) and US Fleet Operational Readiness Accuracy Check Sites (FORACS) programs. Funding also provides for improvements, modernizations, and upgrades to systems and equipment. (S05)</p> <p>[P40A - 3 / VC002 - UNDERWATER TRACKING RANGE EQUIPMENT (UTRE) - N98]: Funding provides for the procurement of shipboard underwater tracking equipment for existing ranges on both coasts and in Hawaii, shop special purpose Pinger test equipment, and the associated cables/mounting hardware required to track ships and submarines conducting Fleet exercises at the Navy training ranges for the Underwater Tracking Range Equipment (UTRE)/Pinger Program. Funding provides tracking equipment for systems, platforms, torpedoes and targets on all Navy Underwater Tracking Ranges. Funding also provides for improvements, modernizations, and upgrades to systems and equipment. Funding plus-up starting in FY14 is for an obsolescence driven upgrade to the submarine Underwater Tracking System (UTS). Funding will provide for procurement of underwater tracking equipment for submarines operating on Undersea Ranges including 65 UTS shipboard units, TEMPALT modifications and training. (S05)</p> <p>[P40A - 3 / VC003 - TOWED TARGETS]: The Fleet requires low cost expendable towed targets for weapon system T&E and Fleet training. The Low Cost Modular Target (LCMT) and the Polyethylene Tow Target (PETT) are the primary towed targets used to meet these requirements in future years.</p> <p>[P40A - 3 / VC004 - INSTRUMENTATION]: Seaborne target augmentation systems include transponders (i.e. transmitters/receivers), radar reflectors, radio frequency (RF) emitters and ground support equipment (GSE). Various electronic components provide the interface for the target control systems with the control stations/facilities for drone operations. RF emitters and radar reflectors enhance target threat replication and provide the required stimulus for anti-surface/radar weapons systems.</p> <p>[P40A - 3 / VC005 - HSMST (HIGH SPEED MANEUVERABLE SURFACE TARGET)]: Provides the user with a medium to high speed remote controlled surface target with a high degree of maneuverability. It has a form fitted collar surrounding the deck area of the aluminum hull. This target can exceed 45 knots in a calm sea and approaches 40 knots in a sea state 3.</p> <p>[P40A - 3 / VC006 - SDST (Ship Deployable Surface Target)]: SDST (Ship Deployable Surface Target) is used to support Fleet training and T&E exercises. This target supports training requirements of deploying ships and aircraft and surface gunnery requirements.</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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment		P-1 Line Item Number / Title: 5429 / ASW Support Equipment
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P40A - 3 / VC007 - FACT (Fast Attack Craft Target)]: FACT (Fast Attack Craft Target) is required to meet T&E requirements for weapon systems tests and Fleet training. The exercises require a target to represent missile capable patrol craft operating at speeds of 50 knots in sea state 2 conditions.</p> <p>[P40A - 3 / VC831/2 - PRODUCTION ENGINEERING]: _ Funding provides for Production Engineering performed by a field activity or contractor during the production phase of these projects. (S05)</p> <p>[P40A - 3 / VC851 - PRODUCT IMPROVEMENT]: _ Funding provides for Product Improvement performed by a field activity or contractor during the production phase of these projects. (S05)</p> <p>[P40A - 3 / VC970 - INTEGRATED LOGISTICS SUPPORT]: Review of proposed acquisition documentation to ensure all logistics requirements are included.</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 04: Ordnance Support Equipment / BSA 5: ASW Support Equipment

P-1 Line Item Number / Title:
5429 / ASW Support Equipment

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

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

Exhibits Schedule				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	SUB WEAPONS LAUNCHING/HANDLING SUPPORT EQUIPMENT			- / 0.000	- / 3.876	- / 3.485	- / 3.755	- / -	- / 3.755
P-40a	SURFACE ASW SUPPORT EQUIPMENT			- / 0.000	- / 3.683	- / 3.709	- / 3.508	- / -	- / 3.508
P-40a	ASW Range Support Equipment (3)	P-5a		- / 0.000	- / -	- / 22.995	- / 19.168	- / -	- / 19.168
P-40	Total Gross/Weapon System Cost			- / 0.000	- / 7.559	- / 30.189	- / 26.431	- / -	- / 26.431

*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: The items contained within this budget line were funded under other line items in FY14 and prior.

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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 / 04 / 5	P-1 Line Item Number / Title: 5429 / ASW Support Equipment	Aggregated Items Title: SUB WEAPONS LAUNCHING/ HANDLING SUPPORT EQUIPMENT ⁽¹⁾
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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)
1) VC000 - SUB WEAPONS LAUNCH/HANDLING SUPPORT																				
1.1) 2J COG MATERIAL	A		-	-	-	-	-	0.200	-	-	0.100	-	-	0.114	-	-	-	-	-	0.114
1.2) TT/TEP/ICL/ WSHS	A		-	-	-	-	-	1.203	-	-	1.019	-	-	1.000	-	-	-	-	-	1.000
Subtotal: 1) VC000 - SUB WEAPONS LAUNCH/HANDLING SUPPORT			-	-	0.000	-	-	1.403	-	-	1.119	-	-	1.114	-	-	-	-	-	1.114
2) VC000 ORDALT PROCUREMENT																				
2.1) O/A MATERIAL	A		-	-	-	50,000.00	5	0.250	50,000.00	5	0.250	50,000.00	6	0.300	-	-	-	50,000.00	6	0.300
Subtotal: 2) VC000 ORDALT PROCUREMENT			-	-	0.000	-	-	0.250	-	-	0.250	-	-	0.300	-	-	-	-	-	0.300
3) VC000 - TEST EQUIPMENT																				
3.1) BORE GAGE	A		-	-	-	-	-	0.075	-	-	0.047	-	-	0.009	-	-	-	-	-	0.009
3.2) MISC. TEST EQUIPMENT	A		-	-	-	-	-	0.075	-	-	0.075	-	-	0.075	-	-	-	-	-	0.075
3.3) TEST FACILITY EQUIPMENT	A		-	-	-	-	-	0.100	-	-	0.091	-	-	0.118	-	-	-	-	-	0.118
Subtotal: 3) VC000 - TEST EQUIPMENT			-	-	0.000	-	-	0.250	-	-	0.213	-	-	0.202	-	-	-	-	-	0.202
4) VC830 - PRODUCTION ENGINEERING																				
4.1) PRODUCTION ENGINEERING	A		-	-	-	-	-	0.250	-	-	0.200	-	-	0.160	-	-	-	-	-	0.160
Subtotal: 4) VC830 - PRODUCTION ENGINEERING			-	-	0.000	-	-	0.250	-	-	0.200	-	-	0.160	-	-	-	-	-	0.160
5) VC5IN - ORDALT INSTALLATION																				
5.1) VC5IN O/A INSTALLATION	A		-	-	-	-	-	1.723	-	-	1.703	-	-	1.979	-	-	-	-	-	1.979
Subtotal: 5) VC5IN - ORDALT INSTALLATION			-	-	0.000	-	-	1.723	-	-	1.703	-	-	1.979	-	-	-	-	-	1.979
Total			-	-	0.000	-	-	3.876	-	-	3.485	-	-	3.755	-	-	-	-	-	3.755

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

Footnotes:

⁽¹⁾ This line item procures modifications and improvements to Attack and Ballistic Missile Submarine fire control interface systems, torpedo tube system components and torpedo tube test equipment. These requirements arise as a result of the introduction of new or modified weapons and sensors and their subsequent evaluation test and operational use. Also procured are reliability, maintainability, functional and safety modifications and tactical improvements resulting from operational use experience.

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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 / 04 / 5	P-1 Line Item Number / Title: 5429 / ASW Support Equipment	Aggregated Items Title: SURFACE ASW SUPPORT EQUIPMENT ⁽²⁾
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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)
1) VC008 - ASWCS FIRE CONTROL ORDALTS																				
1.1) ASWCS - UCFS/ CONTROL PANEL ORDALTS			-	-	-	-	-	1.704	-	-	1.691	-	-	1.581	-	-	-	-	-	1.581
1.2) ASWCS - PRODUCTION ENGINEERING SUPPORT			-	-	-	-	-	0.083	-	-	0.087	-	-	0.089	-	-	-	-	-	0.089
1.3) ASWCS - ACCEPTANCE TEST & EVALUATION			-	-	-	-	-	0.050	-	-	0.050	-	-	0.050	-	-	-	-	-	0.050
Subtotal: 1) VC008 - ASWCS FIRE CONTROL ORDALTS			-	-	0.000	-	-	1.837	-	-	1.828	-	-	1.720	-	-	-	-	-	1.720
2) VC009 - TORPEDO TUBE ORDALTS																				
2.1) SVTT - MK32 ORDALTS			-	-	-	-	-	1.405	-	-	1.438	-	-	1.334	-	-	-	-	-	1.334
2.2) SVTT - PRODUCTION ENGINEERING SUPPORT			-	-	-	-	-	0.083	-	-	0.083	-	-	0.089	-	-	-	-	-	0.089
2.3) SVTT - ACCEPTANCE TEST & EVALUATION			-	-	-	-	-	0.050	-	-	0.050	-	-	0.050	-	-	-	-	-	0.050
Subtotal: 2) VC009 - TORPEDO TUBE ORDALTS			-	-	0.000	-	-	1.538	-	-	1.571	-	-	1.473	-	-	-	-	-	1.473
3) VC900 - CONSULTING SERVICES																				
3.1) CONSULTING SERVICES			-	-	-	-	-	0.097	-	-	0.098	-	-	0.101	-	-	-	-	-	0.101
Subtotal: 3) VC900 - CONSULTING SERVICES			-	-	0.000	-	-	0.097	-	-	0.098	-	-	0.101	-	-	-	-	-	0.101
4) VC6IN - INSTALLATION OF EQUIPMENT - N96																				
4.1) ASWCS - FIRE CONTROL ORDALTS			-	-	-	-	-	0.110	-	-	0.108	-	-	0.110	-	-	-	-	-	0.110
4.2) SVTT - TORPEDO TUBE ORDALTS			-	-	-	-	-	0.101	-	-	0.104	-	-	0.104	-	-	-	-	-	0.104
Subtotal: 4) VC6IN - INSTALLATION OF EQUIPMENT - N96			-	-	0.000	-	-	0.211	-	-	0.212	-	-	0.214	-	-	-	-	-	0.214
Total			-	-	0.000	-	-	3.683	-	-	3.709	-	-	3.508	-	-	-	-	-	3.508

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 / 04 / 5	P-1 Line Item Number / Title: 5429 / ASW Support Equipment	Aggregated Items Title: SURFACE ASW SUPPORT EQUIPMENT ⁽²⁾

Footnotes:

⁽²⁾ SURFACE ASW SUPPORT EQUIPMENT: Funding to procure Reliability, Maintainability and Availability (RM&A) and safety modifications through the Ordnance Alteration (ORDALT) process to Anti-Submarine Warfare (ASW) Fire Control, Surface Vessel Torpedo Tubes (SVTT), and related ASW Fire Control/SVTT support and test equipment to maintain the current envelope. Modification requirements arise as a result of evaluation, testing, and Fleet use of existing, new, or modified ASW weapons and/or related systems and subsystems. Included in this line item are all related procurements for training and simulation equipment required for the continued operation of this equipment. ORDALT procurements are highly variable and dependent on shipboard configurations and equipment age.

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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:						P-1 Line Item Number / Title:						Aggregated Items Title:									
1810N / 04 / 5						5429 / ASW Support Equipment						ASW Range Support Equipment (3)									
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) VC001 - Surface Ship Radiated Noise Measurement (SSRNM)/US Fleet Operational Readiness Acc																					
1.1) VC001 - SSRNM/US FORACS (S05)	A		-	-	-	-	-	-	-	-	4.092	-	-	3.292	-	-	-	-	-	3.292	
Subtotal: 1) VC001 - Surface Ship Radiated Noise Measurement (SSRNM)/US Fleet Operational Readiness Acc			-	-	0.000	-	-	-	-	-	4.092	-	-	3.292	-	-	-	-	-	3.292	
2) VC002 - UNDERWATER TRACKING RANGE EQUIPMENT (UTRE) - N98																					
2.1) VC002 - UTRE (S05)	A		-	-	-	-	-	-	-	-	3.487	-	-	2.757	-	-	-	-	-	2.757	
Subtotal: 2) VC002 - UNDERWATER TRACKING RANGE EQUIPMENT (UTRE) - N98			-	-	0.000	-	-	-	-	-	3.487	-	-	2.757	-	-	-	-	-	2.757	
3) VC003 - TOWED TARGETS																					
3.1) VC003 - TOWED TARGETS (SHIPS)	A		-	-	-	-	-	-	-	-	1.477	-	-	1.248	-	-	-	-	-	1.248	
Subtotal: 3) VC003 - TOWED TARGETS			-	-	0.000	-	-	-	-	-	1.477	-	-	1.248	-	-	-	-	-	1.248	
4) VC004 - INSTRUMENTATION																					
4.1) VC004 - INSTRUMENTATION (SHIPS)	A		-	-	-	-	-	-	-	-	0.243	-	-	0.200	-	-	-	-	-	0.200	
Subtotal: 4) VC004 - INSTRUMENTATION			-	-	0.000	-	-	-	-	-	0.243	-	-	0.200	-	-	-	-	-	0.200	
5) VC005 - HSMST (HIGH SPEED MANEUVERABLE SURFACE TARGET)																					
5.1) VC005 - HSMST (SHIPS) (3)(†)	A		-	-	-	-	-	-	189,898.31	59	11.204	193,702.00	48	9.298	-	-	-	193,702.00	48	9.298	
Subtotal: 5) VC005 - HSMST (HIGH SPEED MANEUVERABLE SURFACE TARGET)			-	-	0.000	-	-	-	-	-	11.204	-	-	9.298	-	-	-	-	-	9.298	
6) VC006 - SDST (Ship Deployable Surface Target)																					
6.1) VC006 - SDST (Ship Deployable Surface Target) (SHIPS)	A		-	-	-	-	-	-	-	-	0.160	-	-	0.123	-	-	-	-	-	0.123	
Subtotal: 6) VC006 - SDST (Ship Deployable Surface Target)			-	-	0.000	-	-	-	-	-	0.160	-	-	0.123	-	-	-	-	-	0.123	
7) VC007 - FACT (Fast Attack Craft Target)																					
7.1) VC007 - FACT (Fast Attack Craft Target) (SHIPS) (†)	A		-	-	-	-	-	-	657,000.00	1	0.657	670,037.00	1	0.670	-	-	-	670,037.00	1	0.670	
Subtotal: 7) VC007 - FACT (Fast Attack Craft Target)			-	-	0.000	-	-	-	-	-	0.657	-	-	0.670	-	-	-	-	-	0.670	
8) VC831/2 - PRODUCTION ENGINEERING																					

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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 / 04 / 5 **P-1 Line Item Number / Title:** 5429 / ASW Support Equipment **Aggregated Items Title:** ASW Range Support Equipment (3)

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)
8.1) VC831 - PRODUCTION ENGINEERING UTRE-N98/US FORACS - N96 (S05)	A		-	-	-	-	-	-	-	0.411	-	-	0.399	-	-	-	-	-	0.399	
8.2) VC832 - PRODUCTION ENGINEERING (Ships)	A		-	-	-	-	-	-	-	0.650	-	-	0.600	-	-	-	-	-	0.600	
Subtotal: 8) VC831/2 - PRODUCTION ENGINEERING			-	-	0.000	-	-	-	-	1.061	-	-	0.999	-	-	-	-	-	0.999	
9) VC851 - PRODUCT IMPROVEMENT																				
9.1) VC851 - PRODUCT IMPROVEMENT UTRE-N98/US FORACS-N96 (S05)	A		-	-	-	-	-	-	-	0.412	-	-	0.401	-	-	-	-	-	0.401	
Subtotal: 9) VC851 - PRODUCT IMPROVEMENT			-	-	0.000	-	-	-	-	0.412	-	-	0.401	-	-	-	-	-	0.401	
10) VC970 - INTEGRATED LOGISTICS SUPPORT																				
10.1) VC970 - INTEGRATED LOGISTICS SUPPORT (SHIPS)	A		-	-	-	-	-	-	-	0.202	-	-	0.180	-	-	-	-	-	0.180	
Subtotal: 10) VC970 - INTEGRATED LOGISTICS SUPPORT			-	-	0.000	-	-	-	-	0.202	-	-	0.180	-	-	-	-	-	0.180	
Total			-	-	0.000	-	-	-	-	22.995	-	-	19.168	-	-	-	-	-	19.168	

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:

(3) Increase in seaborne targets procurement quantities from FY15 to FY16 is required to support greatly increased numbers of surface-to-surface and air-to-surface weapon system test & evaluation and Fleet training exercises starting in FY16. High-demand targets including the High Speed Maneuverable Surface Target (HSMST) will reach critically low inventory levels in FY16 and must be replenished to continue exercises to ensure readiness of ships and aircraft. HSMSTs must be procured annually to (1) replace targets destroyed during testing/exercises, (2) replace targets which are beyond their service life and (3) provide a sufficient inventory of targets at the operating activities (Target Ranges). The Navy conducts approximately 3,000 seaborne target exercises each year. 1,500 seaborne target operations each year involve the HSMST of which approximately 50 actually are destroyed. HSMSTs can be re-used if the target is not impacted or if the extent of the damage is minimal enough to allow the HSMST to be repaired.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 5	P-1 Line Item Number / Title: 5429 / ASW Support Equipment	Aggregated Items: ASW Range Support Equipment (3)
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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) VC005 - HSMST (HIGH SPEED MANEUVERABLE SURFACE TARGET)												
5.1) VC005 - HSMST (SHIPS) ⁽³⁾		2016	TBD / TBD	C / FFP	NAVSEA	Mar 2016	Jun 2016	59	189,898.31	Y		Jan 2016
5.1) VC005 - HSMST (SHIPS) ⁽³⁾		2017	TBD / TBD	C / FFP	NAVSEA	Jan 2017	Apr 2017	48	193,702.00	Y		Oct 2016
7) VC007 - FACT (Fast Attack Craft Target)												
7.1) VC007 - FACT (Fast Attack Craft Target) (SHIPS)		2016	TBD / TBD	C / FFP	NAVSEA	May 2016	Jan 2017	1	657,000.00	Y		Feb 2016
7.1) VC007 - FACT (Fast Attack Craft Target) (SHIPS)		2017	TBD / TBD	C / FFP	NAVSEA	Jan 2017	Sep 2017	1	670,037.00	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 04: Ordnance Support Equipment / BSA 6: Other Ordnance Support Equipment

P-1 Line Item Number / Title:
5509 / Explosive Ordnance Disposal Equip

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603654N, 0604654N, 0604653N

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>)	477.061	124.549	22.623	11.821	99.329	111.150	5.701	15.770	16.093	12.417	-	785.364
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	477.061	124.549	22.623	11.821	99.329	111.150	5.701	15.770	16.093	12.417	-	785.364
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	477.061	124.549	22.623	11.821	99.329	111.150	5.701	15.770	16.093	12.417	-	785.364

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

Initial Spares (<i>\$ in Millions</i>)	-	0.796	-	-	-	-	0.087	0.001	-	-	-	0.884
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The Navy is responsible for the management and execution of the Joint Service Explosive Ordnance Disposal (EOD) unified procurement system as assigned by DOD Directive 5160.62.

Within DoD, only EOD warfighters are trained, equipped, and qualified to perform EOD missions. Joint Service EOD forces operate across the full Range of Military Operations (ROMO) and under all environmental and geographical conditions. The dominant theme within the EOD Concept of Operations (CONOPS) is the incident response to a suspect Improvised Explosive Device (IED) or Unexploded Explosive Ordnance (UXO) or Chemical, Biological, Radiological, Nuclear, or high-yield Explosive (CBRNE) weapon.

EOD Equipment procures Navy EOD required tools and equipment in support of both OCONUS and CONUS operations that allow the ability to detect, access, diagnose, render safe, exploit, and dispose threats to National Security. Current missions now require increased standoff distances and remote means to perform operational tasks due to the increased lethality of munitions and IEDs.

Unique to this program, the Technical Support Detachment (TSD) intelligence mission is to collect, evaluate, analyze, and interpret foreign material acquisition and its relationship to the EOD community. TSD provides technical exploitation of IEDs and conventional ordnance to provide immediate analysis, technical intelligence, and information to EOD warfighters and force protection measures.

The program also provides Joint EOD procurement services for production engineering specific to equipment technical data packages, acceptance test & evaluation for production first articles, and training support packages which include curriculum material for Joint Service EOD systems equipment.

This program also provides for the procurement of Counter Radio-Controlled Improvised Explosive Device (IED) Electronic Warfare (CREW) systems that disrupt enemy command and control radio frequency (RF) communications associated with IEDs.

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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 04: Ordnance Support Equipment / BSA 6: Other Ordnance Support Equipment

P-1 Line Item Number / Title:
5509 / Explosive Ordnance Disposal Equip

ID Code (A=Service Ready, B=Not Service Ready): B **Program Elements for Code B Items:** N/A **Other Related Program Elements:** 0603654N, 0604654N, 0604653N

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 / EOD - Equipment	P-5a, P-21		- / 68.658	- / 17.083	- / 19.694	- / 11.047	- / -	- / 11.047
P-5	2 / CREW and OCO	P-5a, P-21		- / 408.403	- / 107.466	- / 2.929	- / 0.774	- / 99.329	- / 100.103
P-40	Total Gross/Weapon System Cost			- / 477.061	- / 124.549	- / 22.623	- / 11.821	- / 99.329	- / 111.150

*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 \$482 thousand as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

FY 2017 funding provides for the baseline program to procure Navy EOD Equipment, 27 Advanced EOD ROBOTS, Decision Support System (DSS) upgrades to Joint Service EOD Common Platform/Controller, DSS JEODNET N0 enclave and DSS Production Environments, EOD Outfitting table of allowance equipment, Production Engineering, Acceptance, Test & Evaluation, Product Improvement of the EOD equipment; EOD training and related support; Technical Training material used for training at the Naval School Explosive Ordnance Disposal (EOD).

Baseline funding is also required to procure Mobile In-Country Exploitation (ICE), tools and equipment. Additionally, FY 2017 baseline funds will procure Combined Explosive Exploitation Cell Platoon Laboratory Table Allowance equipment for intelligence mission is to collect, evaluate, analyze, and interpret foreign material acquisition and its relationship to the EOD community(i.e. Advanced X-Ray; Weapons Assessment tools).

OCO:

FY 2017 Overseas Contingency Operations (OCO) funds support recapitalization/reset of legacy Counter Radio-Controlled Improvised Explosive Device (IED) Electronic Warfare (CREW) systems/equipment currently in service, providing electronic warfare jammer protection against radio-controlled improvised explosive devices. Systems are adaptively deployed across NECC and Naval Beach Group forces as required for Operation Freedom's Sentinel (OFS-T).

CREW systems disrupt enemy command and control radio frequency (RF) communications associated with IEDs. Recapitalization of CREW systems provides electronic warfare jammer protection against radio-controlled improvised explosive devices.

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Exhibit P-5, Cost Analysis: PB 2017 Navy						Date: February 2016		
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6			P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip			Item Number / Title [DODIC]: 1 / EOD - Equipment		
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)			68.658	17.083	19.694	11.047	-	11.047
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)			68.658	17.083	19.694	11.047	-	11.047
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)			68.658	17.083	19.694	11.047	-	11.047
<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 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 - VN075 - EOD EQUIPMENT/SYSTEM Cost																		
Recurring Cost																		
1.1.1) ADVANCED EOD ROBOT ⁽¹⁾ (1)	-	-	0.000	-	-	-	222,580.00	49	10.906	220,555.55	27	5.955	-	-	-	220,555.55	27	5.955
<i>Subtotal: Recurring Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>10.906</i>	-	-	<i>5.955</i>	-	-	-	-	-	<i>5.955</i>
<i>Subtotal: Hardware - VN075 - EOD EQUIPMENT/SYSTEM Cost</i>	-	-	<i>0.000</i>	-	-	-	-	-	<i>10.906</i>	-	-	<i>5.955</i>	-	-	-	-	-	<i>5.955</i>
Hardware - VN077 - EOD OUTFITTING Cost																		
Recurring Cost																		
2.1.1) COMBINED EXPLOSIVE EXPLOITATION CELL (2)	-	-	8.388	-	-	4.333	-	-	1.600	-	-	1.000	-	-	-	-	-	1.000
2.1.2) MATERIAL FOR NAVSCOLEOD (3)	-	-	2.423	-	-	0.380	-	-	0.340	-	-	0.350	-	-	-	-	-	0.350
2.1.3) EOD DSS CIP (4)	-	-	6.024	-	-	2.880	-	-	1.150	-	-	1.011	-	-	-	-	-	1.011
2.1.4) NAVY EOD EQUIPMENT (5)	-	-	24.833	-	-	6.149	-	-	0.933	-	-	0.067	-	-	-	-	-	0.067
2.1.5) JS EOD MOBILE ICE MODULES (6)	-	-	1.391	-	-	0.365	-	-	0.271	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Recurring Cost</i>	-	-	<i>43.059</i>	-	-	<i>14.107</i>	-	-	<i>4.294</i>	-	-	<i>2.628</i>	-	-	-	-	-	<i>2.628</i>

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 1 / EOD - Equipment

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 (\$)	Qty (Each)	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 - VN077 - EOD OUTFITTING Cost</i>	-	-	43.059	-	-	14.107	-	-	4.294	-	-	2.628	-	-	-	-	-	2.628
Support - VN830 - PRODUCTION ENGINEERING Cost																		
3.1) PRODUCTION ENGINEERING ⁽⁷⁾	-	-	7.350	-	-	1.131	-	-	2.844	-	-	1.100	-	-	-	-	-	1.100
<i>Subtotal: Support - VN830 - PRODUCTION ENGINEERING Cost</i>	-	-	7.350	-	-	1.131	-	-	2.844	-	-	1.100	-	-	-	-	-	1.100
Support - VN850 - PRODUCT IMPROVEMENT Cost																		
4.1) PRODUCT IMPROVEMENT ⁽⁸⁾	-	-	6.566	-	-	0.728	-	-	0.542	-	-	0.577	-	-	-	-	-	0.577
<i>Subtotal: Support - VN850 - PRODUCT IMPROVEMENT Cost</i>	-	-	6.566	-	-	0.728	-	-	0.542	-	-	0.577	-	-	-	-	-	0.577
Support - VN860 - ACCEPTANCE, TEST & EVALUATION Cost																		
5.1) ACCEPTANCE, TEST & EVALUATION ⁽⁹⁾	-	-	6.153	-	-	0.831	-	-	0.810	-	-	0.587	-	-	-	-	-	0.587
5.2) JOINT CREW ACCEPTANCE TEST & EVALUATION	-	-	3.104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support - VN860 - ACCEPTANCE, TEST & EVALUATION Cost</i>	-	-	9.257	-	-	0.831	-	-	0.810	-	-	0.587	-	-	-	-	-	0.587
Support - VNTNG - INITIAL TRAINING Cost																		
6.1) VNTNG - INITIAL TRAINING ⁽¹⁰⁾	-	-	2.426	-	-	0.286	-	-	0.298	-	-	0.200	-	-	-	-	-	0.200
<i>Subtotal: Support - VNTNG - INITIAL TRAINING Cost</i>	-	-	2.426	-	-	0.286	-	-	0.298	-	-	0.200	-	-	-	-	-	0.200
Gross/Weapon System Cost	-	-	68.658	-	-	17.083	-	-	19.694	-	-	11.047	-	-	-	-	-	11.047

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

Footnotes:

(1) Advanced EOD Robotics provides USN EOD outfitting dismounted operations systems for performing operations in remote locations or when Joint Service Explosive Ordnance Disposal (JSEOD) forces are directly supporting maneuver forces in the anticipation of an incident. Procurement of systems support modular open architecture approaches for reduction of equipment footprint.

(2) COMBINED EXPLOSIVE EXPLOITATION CELL-CExc/NSWCiEOD TECHNICAL SUPPORT DETACHMENT: Provides for the outfitting of Sea Duty EOD Detachment to address operational requirements for IED exploitation support of global tasking.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 1 / EOD - Equipment
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>(3) MATERIAL FOR NAVSCOLEOD: Provides for inert ordnance material to NAVSCOLEOD in support of Joint Service training.</p> <p>(4) EOD DECISION SUPPORT SYSTEM (DSS) CIP: Procurement of Joint EOD Decision Support System continuous improvement for major modifications to include the Mobile Field kit and Joint EOD Portal for access to relevant and timely information to extend military capability.</p> <p>(5) NAVY EOD EQUIPMENT: Provides reset recapitalization equipment against approved allowance to support the Joint Service EOD community.</p> <p>(6) JS EOD MOBILE ICE MODULES: Provides self contained, deployable MILVAN type container configured and outfitted to perform ordnance and IED exploitation.</p> <p>(7) 3.1) PRODUCTION ENGINEERING Provides production engineering support for all EOD production contracts. Reviews all technical data packages prior to procurement and provide procurement instruction to the procuring activity in support of the EOD unified procurement system.</p> <p>(8) 4.1) PRODUCT IMPROVEMENT Engineering services to improve EOD Systems/Equipment in production to improve maintainability, utilize current technology and decrease cost.</p> <p>(9) 5.1) ACCEPTANCE, TEST & EVALUATION Test, inspect, accept first articles and, on a 100% basis, the production quantity of EOD tools and equipment being procured.</p> <p>(10) 6.1) INITIAL TRAINING Provides training on EOD systems and related support.</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 / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 1 / EOD - Equipment
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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) ADVANCED EOD ROBOT ^(†)		2016	NORTROP GRUMMAN / Herndon, VA	C / FFP	NSWCIHEOD	Sep 2016	Sep 2017	49	222,580.00	N		Jun 2014
1.1.1) ADVANCED EOD ROBOT ^(†)		2017 ⁽¹¹⁾	NORTROP GRUMMAN / Herndon, VA	C / FFP	NSWCIHEOD	Jan 2017	Jan 2018	27	220,555.55	N		Jun 2014

^(†) indicates the presence of a P-21

Footnotes:

⁽¹¹⁾ Advanced Explosive Ordnance Disposal Robotic System (AEODRS) Prime System Integrator (PSI) contract award in FY2015, Production Decision in Q4 FY2016.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6 **P-1 Line Item Number / Title:** 5509 / Explosive Ordnance Disposal Equip **Item Number / Title [DODIC]:** 1 / EOD - Equipment

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017												BALANCE	
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
1.1.1) ADVANCED EOD ROBOT ⁽¹⁾																															
	1	2016	NAVY	49	-	49																							49	-	
	1	2017	NAVY	27	-	27																							27	-	
							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 / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 1 / EOD - Equipment
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019												B A L A N C E	
O C C O	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
1.1.1) ADVANCED EOD ROBOT ⁽¹⁾																															
	1	2016	NAVY	49	49	-																							-		
	1	2017	NAVY	27	-	27	-	-	-																				-		
							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 / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 1 / EOD - 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	NORTROP GRUMMAN - Herndon, 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-5, Cost Analysis: PB 2017 Navy **Date:** February 2016

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 2 / CREW and OCO
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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)	408.403	107.466	2.929	0.774	99.329	100.103
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	408.403	107.466	2.929	0.774	99.329	100.103
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	408.403	107.466	2.929	0.774	99.329	100.103

(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 - VN870 - JOINT CREW Cost

Non Recurring Cost																		
1.1.1) JOINT CREW ⁽¹⁾ (12)	-	-	0.000	141,440.00	25	3.536	117,160.00	25	2.929	-	-	-	-	-	-	-	-	-
1.1.2) TECH INSERTION and REFRESH	-	-	0.001	-	-	-	-	-	-	-	-	0.774	-	-	-	-	-	0.774
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.001</i>	-	-	<i>3.536</i>	-	-	<i>2.929</i>	-	-	<i>0.774</i>	-	-	-	-	-	<i>0.774</i>
<i>Subtotal: Hardware - VN870 - JOINT CREW Cost</i>	-	-	<i>0.001</i>	-	-	<i>3.536</i>	-	-	<i>2.929</i>	-	-	<i>0.774</i>	-	-	-	-	-	<i>0.774</i>

Hardware - VNG82 - OCO SUPPLEMENTAL (FY 2015) (OEF-A) Cost

Non Recurring Cost																		
2.1.1) JOINT CREW OCO (FY2015) (OEF-A) ⁽¹⁾	-	-	0.000	314,936.00	110	34.643	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	<i>0.000</i>	-	-	<i>34.643</i>	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - VNG82 - OCO SUPPLEMENTAL (FY 2015) (OEF-A) Cost</i>	-	-	<i>0.000</i>	-	-	<i>34.643</i>	-	-	-	-	-	-	-	-	-	-	-	-

Hardware - VNG83 - OCO SUPPLEMENTAL (FY 2015) (OEF-HOA) Cost

Non Recurring Cost

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6		P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip
		Item Number / Title [DODIC]: 2 / CREW and OCO

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 (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
3.1.1) JOINT CREW OCO (FY2015) (OEF-HOA) ^(†)	-	-	0.000	368,543.00	94	34.643	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	34.643	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - VNG83 - OCO SUPPLEMENTAL (FY 2015) (OEF-HOA) Cost</i>	-	-	0.000	-	-	34.643	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - VNG84- OCO SUPPLEMENTAL (FY2015) (OEF-T) Cost																		
Non Recurring Cost																		
4.1.1) JOINT CREW OCO (FY2015) (OEF-T) ^(†)	-	-	0.000	360,875.00	96	34.644	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	34.644	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - VNG84- OCO SUPPLEMENTAL (FY2015) (OEF-T) Cost</i>	-	-	0.000	-	-	34.644	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - VNC85-CREW OCO SUPPLEMENTAL (FY2014) (OEF-T) Cost																		
Non Recurring Cost																		
5.1.1) JOINT CREW OCO SUPPLEMENTAL (FY2014) (OEF-T)	-	-	103.930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Non Recurring Cost</i>	-	-	103.930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - VNC85-CREW OCO SUPPLEMENTAL (FY2014) (OEF-T) Cost</i>	-	-	103.930	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardware - VNGXX - OCO CREW SUPPLEMENTAL (FY2017) (OFS) Cost																		
Non Recurring Cost																		
6.1.1) VNGXX OCO CREW SUPPLEMENTAL (FY2017) (OFS) ^(†)	-	-	0.000	-	-	-	-	-	-	-	-	-	164,998.34	602	99.329	164,998.34	602	99.329
<i>Subtotal: Non Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	99.329	-	-	99.329
<i>Subtotal: Hardware - VNGXX - OCO CREW</i>	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	99.329	-	-	99.329

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Exhibit P-5, Cost Analysis: PB 2017 Navy												Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6						P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip						Item Number / Title [DODIC]: 2 / CREW and OCO					
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>SUPPLEMENTAL (FY2017) (OFS) Cost</i>																		
Hardware - PRIOR YEARS CUMULATIVE FUNDING Cost																		
Recurring Cost																		
7.1.1) PRIOR YEARS CUMULATIVE FUNDING	-	-	304.472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	304.472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - PRIOR YEARS CUMULATIVE FUNDING Cost</i>	-	-	304.472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	408.403	-	-	107.466	-	-	2.929	-	-	0.774	-	-	99.329	-	-	100.103

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

Footnotes:

(12) 1.1.1) JOINT CREW Provides for the procurement, support, and other related costs of the Joint Counter Radio Controlled Improvised Explosive Device - Electronic Warfare (JCREW) program and related family of systems that provide countermeasures against the global Radio Controlled IED (RCIED) threat.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 2 / CREW and OCO
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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) JOINT CREW		2015	NGC / San Diego, CA	C / FPIF	NAVSEA	Sep 2015	Mar 2016	25	141,440.00	Y		Oct 2014
1.1.1) JOINT CREW		2016	NGC / San Diego, CA	C / FPIF	NAVSEA	Jul 2016	Jan 2017	25	117,160.00	Y		Oct 2014
2.1.1) JOINT CREW OCO (FY2015) (OEF-A)	✓	2015	NGC / San Diego, CA	C / CPIF	NAVSEA	Jul 2016	Feb 2017	110	314,936.00	Y		Oct 2014
3.1.1) JOINT CREW OCO (FY2015) (OEF-HOA)	✓	2015	NGC / San Diego, CA	C / CPIF	NAVSEA	Jul 2016	Feb 2017	94	368,543.00	Y		Oct 2014
4.1.1) JOINT CREW OCO (FY2015) (OEF-T)	✓	2015	NGC / San Diego, CA	C / CPIF	NAVSEA	Jul 2016	Feb 2017	96	360,875.00	Y		Oct 2014
6.1.1) VNGXX OCO CREW SUPPELMENTAL (FY2017) (OFS) ^(†)	✓	2017	TBD / TBD	C / FFP	NAVSEA	Jun 2017	Jun 2018	602	164,998.34	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 / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 2 / CREW and OCO
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Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015												Fiscal Year 2016												BALANCE																					
OCO #	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015												Calendar Year 2016																																
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		SEP																				
6.1.1) VNGXX OCO CREW SUPPELMENTAL (FY2017) (OFS)																																																			
✓	1	2017	NAVY	602	-	602																									602																				
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td>OCT</td><td>NOV</td><td>DEC</td><td>JAN</td><td>FEB</td><td>MAR</td><td>APR</td><td>MAY</td><td>JUN</td><td>JUL</td><td>AUG</td><td>SEP</td><td>OCT</td><td>NOV</td><td>DEC</td><td>JAN</td><td>FEB</td><td>MAR</td><td>APR</td><td>MAY</td><td>JUN</td><td>JUL</td><td>AUG</td><td>SEP</td> </tr> </table>																												OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP																												

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6 **P-1 Line Item Number / Title:** 5509 / Explosive Ordnance Disposal Equip **Item Number / Title [DODIC]:** 2 / CREW and OCO

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2017												Fiscal Year 2018												BALANCE			
OCO #	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018														
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		SEP		
6.1.1) VNGXX OCO CREW SUPPELMENTAL (FY2017) (OFS)																																	
✓	1	2017	NAVY	602	-	602									A	-	-	-	-	-	-	-	-	-	-	-	-	-	90	90	90	90	242
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6 **P-1 Line Item Number / Title:** 5509 / Explosive Ordnance Disposal Equip **Item Number / Title [DODIC]:** 2 / CREW and OCO

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2019												Fiscal Year 2020												BALANCE	
OCO #	MFR #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2018	BAL DUE AS OF 1 OCT	Calendar Year 2019												Calendar Year 2020												
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		SEP
6.1.1) VNGXX OCO CREW SUPPELMENTAL (FY2017) (OFS)																															
✓	1	2017	NAVY	602	360	242	90	90	62																				-		
							OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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Exhibit P-21, Production Schedule: PB 2017 Navy	Date: February 2016
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Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 6	P-1 Line Item Number / Title: 5509 / Explosive Ordnance Disposal Equip	Item Number / Title [DODIC]: 2 / CREW and OCO
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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 - TBD	-	-	-	-	-	-	-	-	-	-	-	-

"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 04: Ordnance Support Equipment / BSA 6: Other Ordnance Support Equipment	P-1 Line Item Number / Title: 5543 / Items Less Than \$5 Million
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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>)	54.688	10.759	9.906	6.243	-	6.243	5.458	5.646	5.745	5.866	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	54.688	10.759	9.906	6.243	-	6.243	5.458	5.646	5.745	5.866	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	54.688	10.759	9.906	6.243	-	6.243	5.458	5.646	5.745	5.866	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:

[P40A / RA004 - QUALITY EVAL TECH & EQUIPMENT (QETE)]: Provides funding to procure test systems and equipment in support of the Navy weapons systems and ordnance Quality Evaluation (QE) Program. The purpose of the Navy QE Program is to insure that only safe, quality, reliable, and ready Navy and Marine Corps weapons systems and ordnance items are provided to the Fleet. The results of the QE stock surveillance testing is technical readiness data used to predict when items degrade to the point where they become unsafe to store or would fail to function (unreliable) when needed and should be removed from service.

This generic (non-weapons systems specific) test equipment is needed to assess the effects of aging and exposure to environmental conditions on Navy weapons systems and ordnance such as mines, gun ammunition, missiles, pyrotechnics, demolition systems/devices, bombs, and torpedoes throughout the in-service portion of their life cycle and will be located at NAVSEA engineering field activities. Requirements for the test equipment come from a need to replace or modernize obsolete or economically non-repairable equipment or to acquire new or expanded generic test capabilities when new evaluation techniques or process are needed. The equipments procured by these funds are generally "one of a kind" and are used to support generic Navy weapons systems and ordnance types. Weapons systems specific equipment is procured/funded via the individual weapons system Program Management offices. After the weapon specific equipment has entered the inventory, these funds adapt the capability, if feasible, to become more generic and support more than one weapon system. This reduces the overall economic burden to the Navy.

[P40A / RA005 - FLEET MINE SUPPORT EQUIPMENT]: Mine Countermeasure Targets are used to emulate both physically and electronically Foreign mine threats for Fleet training, exercises, ranges, and platform and system validation. Instrumented Mine Countermeasures (MCM) Targets can be programmed to behave and function like real foreign mine threats for mine sweeping and platform validation where non-instrumented Mine Countermeasure Targets emulate foreign threats physically for mine hunting training and system validation. Non-instrumented MCM Targets are also used for mine neutralization training and validation.

[P40A / RA001 - FLT SUPPORT ORDALT PROCUREMENT (MK92)]: Provides hardware and related materials to modify Fire Control System MK92 Mod 2/6 installed onboard FFG 7 Class ships. Modifications correct safety, environmental, Reliability, Maintainability and Availability (RM&A), cost of ownership and obsolescence deficiencies to maintain the readiness of the Anti-Aircraft Warfare/Anti-Surface Warfare (AAW/ASUW) Weapons System mission for self and area defense against hostile air and surface threats, including anti-ship missile threats. Hardware is procured as Ordnance Alterations (ORDALTs). Installation of ORDALTs will be accomplished by either AIT (Alteration Installation Teams) or in conjunction with routine repair actions planned in the fiscal years following the procurement.

[P40A / RA4M6 - FMP INSTALLATION]: Provides funding to install procured MK92 ORDALTs into FFG 7 Class ships by AIT.

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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 04: Ordnance Support Equipment / BSA 6: Other Ordnance Support Equipment		P-1 Line Item Number / Title: 5543 / Items Less Than \$5 Million
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 / RA006 - GRIFFIN MISSILE SYSTEM (GMS)]: The Griffin Missile System (GMS) will provide precision, short range, anti-surface warfare attack capability against Fast Inshore Attack Craft (FIAC) targets. The GMS provides these capabilities through the use of Griffin Missile (procured separately with WPN funding) and GMS ship set integrated on a Patrol Coastal (PC). A GMS ship set consists of the following components: Electro-Optical Infra-Red sensor with laser designator, two Launchers and associated equipment, Weapons Control System including cabling, connectors, graphical user interface, and Operator Interface Station. System Install & Check-Out is included.</p> <p>[P40A / RA007 - GRIFFIN MISSILE SYSTEM (GMS) INITIAL TECHNICAL REFRESH]: This line supports major initial replacement systems for the Griffin Missile (GMS) Program to include Sensor balls, battle management system, launcher/launcher components. Funding also procures all technical refresh upgrades of the GMS hardware and software aboard Patrol Coastal (PC) ships. Upgrades will include: Battlefield Management System (BMS) workstation hardware, latest version of BMS system software, and refresher training. Funds will also support management of contractor efforts, preparation of installation plans, performance of ship checks, procurement of materials, oversight of shipboard installation and Quality Assurance (QA), installation and testing of all software and shipboard training.</p> <p>[P40A / RA007 - GRIFFIN MISSILE SYSTEM (GMS) INITIAL TECHNICAL REFRESH]: This line continues in FY2017 under a new grouping, Patrol Combatants. This is a technical adjustment to move non-frigate funding out of the Frigate Missile funding group. RA007 funding supports major initial replacement systems for the Griffin Missile (GMS) Program to include Sensor balls, Battlefield Management System, Launcher/Launcher components. Funding also procures all technical refresh upgrades of the GMS hardware and software aboard Patrol Coastal (PC) ships. Upgrades will include: Battlefield Management System (BMS) workstation hardware, latest version of BMS system software, and refresher training. Funds will also support management of contractor efforts, preparation of installation plans, performance of ship checks, procurement of materials, oversight of shipboard installation and Quality Assurance (QA), installation and testing of all software and shipboard training.</p> <p>[P40A / RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP)]: Provides funding for capital type rehabilitation projects at two (2) government-owned, contractor-operated (GOCO) plants for weapon systems. Federal Acquisition Regulation Part 52.245-7 specifies facilities use contracts require government funding of capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 45 years and lack of proper maintenance will severely limit capabilities to maintain scheduled production rates and overall productivity. Estimates support environmental, safety, energy conservation, and major repair at the GOCO 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 04: Ordnance Support Equipment / BSA 6: Other Ordnance Support Equipment **P-1 Line Item Number / Title:**
 5543 / Items Less Than \$5 Million

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	Items Less Than \$5 Million	P-5a		- / 54.688	- / 10.759	- / 9.906	- / 6.243	- / -	- / 6.243
P-40	Total Gross/Weapon System Cost			- / 54.688	- / 10.759	- / 9.906	- / 6.243	- / -	- / 6.243

*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 decrease in Items Less Than \$5 Million OPN by \$0.262M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

 The FY 2017 funding request was also reduced by \$0.069M to account for the availability of prior year execution balances.

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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 / 04 / 6 **P-1 Line Item Number / Title:** 5543 / 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) MAINTENANCE SUPPORT ACTIVITIES																				
1.1) RA004 - QUALITY EVAL TECH & EQUIPMENT (QETE)	B		-	-	15.315	-	-	1.619	-	-	1.640	-	-	1.522	-	-	-	-	-	1.522
Subtotal: 1) MAINTENANCE SUPPORT ACTIVITIES			-	-	15.315	-	-	1.619	-	-	1.640	-	-	1.522	-	-	-	-	-	1.522
2) MINE COUNTERMEASURES FORCES																				
2.1) RA005 - FLEET MINE SUPPORT EQUIPMENT	B		-	-	4.735	-	-	2.578	-	-	2.616	-	-	2.356	-	-	-	-	-	2.356
Subtotal: 2) MINE COUNTERMEASURES FORCES			-	-	4.735	-	-	2.578	-	-	2.616	-	-	2.356	-	-	-	-	-	2.356
3) FRIGATES - MISSILE																				
3.1) RA001 - FLT SUPPORT ORDALT PROCUREMENT (MK92)	A		793,666.67	9	7.143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.2) RA4M6 - FMP INSTALLATION ^(†)	A		86,727.27	11	0.954	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.3) RA006 - GRIFFIN MISSILE SYSTEM (GMS) ^(†)	A		3,848K	5	19.239	-	-	5.400	-	-	-	-	-	-	-	-	-	-	-	-
3.4) RA007 - GRIFFIN MISSILE SYSTEM (GMS) INITIAL TECHNICAL REFRESH	A		-	-	-	-	-	1.162	-	-	5.151	-	-	-	-	-	-	-	-	-
Subtotal: 3) FRIGATES - MISSILE			-	-	27.336	-	-	6.562	-	-	5.151	-	-	-	-	-	-	-	-	-
4) PATROL COMBATANTS																				
4.1) RA007 - GRIFFIN MISSILE SYSTEM (GMS) INITIAL TECHNICAL REFRESH	A		-	-	-	-	-	-	-	-	-	-	-	1.902	-	-	-	-	-	1.902
Subtotal: 4) PATROL COMBATANTS			-	-	0.000	-	-	-	-	-	-	-	-	1.902	-	-	-	-	-	1.902
5) GOCO FACILITIES																				
5.1) RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP) ^(†)	A		2,434K	3	7.302	-	-	-	499,000.00	1	0.499	463,000.00	1	0.463	-	-	-	463,000.00	1	0.463
Subtotal: 5) GOCO FACILITIES			-	-	7.302	-	-	-	-	-	0.499	-	-	0.463	-	-	-	-	-	0.463
Total			-	-	54.688	-	-	10.759	-	-	9.906	-	-	6.243	-	-	-	-	-	6.243

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 / 04 / 6	P-1 Line Item Number / Title: 5543 / Items Less Than \$5 Million	Aggregated Items Title: Items Less Than \$5 Million

(†) 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 / 04 / 6	P-1 Line Item Number / Title: 5543 / Items Less Than \$5 Million	Aggregated Items: Items Less Than \$5 Million
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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) FRIGATES - MISSILE												
3.2) RA4M6 - FMP INSTALLATION		2014	NSWC/PHD / PORT HUENEME, CA	WR	NAVSEA	Jan 2015	Jan 2015	3	33,333.33	Y		Mar 2014
3.3) RA006 - GRIFFIN MISSILE SYSTEM (GMS)		2014	Naval Surface Warfare Center Dahlgren / Dahlgren, Va	Various	NSWC/Dahlgren	Dec 2013	Sep 2014	5	1,609K	Y		Oct 2013
5) GOCO FACILITIES												
5.1) RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP)		2013	Phillips Corporation / Hanover, MD	MIPR	DLA/AVIATION	Feb 2015	Aug 2015	1	469,000.00	Y		Feb 2014
5.1) RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP)		2014	NSWC/IH / INDIAN HEAD, MD	WR	NSWC/IH	Mar 2015	Jul 2015	1	476,000.00	Y		Mar 2014
5.1) RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP)		2016	TBD / TBD	C / TBD	DLA/AVIATION	Feb 2016	Jun 2016	1	499,000.00	N	Sep 2016	Oct 2015
5.1) RA003 - INDUSTRIAL FACILITIES (CALIB. EQUIP)		2017	TBD / TBD	C / TBD	DLA/AVIATION	Mar 2017	Jul 2017	1	463,000.00	Y		Oct 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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance

P-1 Line Item Number / Title:
5661 / Submarine Training Device Mods

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

Line Item MDAP/MAIS Code: N/A **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>)	465.055	-	-	48.020	-	48.020	52.423	50.375	63.056	64.329	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	465.055	-	-	48.020	-	48.020	52.423	50.375	63.056	64.329	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	465.055	-	-	48.020	-	48.020	52.423	50.375	63.056	64.329	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>)	-	-	0.112	0.367	-	0.367	0.266	0.306	0.280	0.282	Continuing	Continuing
Flyaway Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (<i>\$ in Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

The equipment procured under this line supports Hull, Mechanical, and Electrical (HM&E) and Combat Systems training requirements.

Beginning in FY2017, N97 funding in BLIs 1320, 2762, and 5662 will be budgeted/executed in BLI 5661.

[P40A / Submarine Training]: This line provides funds to modify/upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment and to implement Training Enhancement Changes (TECs) to the trainer systems capabilities.

[P40A / HM&E TRAINERS]: Funds procure Subsurface HM&E Fleet and Team Trainer Technical Training Equipment (TTE), Training Enhancement Changes (TECs), which are centrally managed systems, support equipment, and various modifications and upgrades to simulators / stimulators, such as Submarine Ship Control Operator Trainer (SCOT), and Next Generation Firefighter Trainer (FFT) identified by the Submarine Learning Center (SLC) and approved by Chief of Naval Operations (CNO), for use at the submarine training activities. This TTE/Training Unique Equipment (TUE) sustains a better quality of training and replaces equipment beyond economical repair or procures new equipment. Funds also procure Submarine High Risk Trainer procurement for Pressurized Submarine Escape Trainers and Damage Control Wet Trainers.

[P40A / ENGINEERING TRAINERS]: Fleet Interactive Display Equipment (FIDE) trainers are provided for nuclear power plant training. FIDEs support multiple ship classes and FIDE configurations at nine different geographic sites, each requiring different levels of installation work; thus the cost for the program varies widely from year to year depending on the combination of these factors. Virginia (VA) Class trainers are procured for the 2nd and 3rd home ports and for configuration updates to existing trainers.

[P40A / NAVIGATION TRAINING]: 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, 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 cannot be accommodated. This line also provides configuration changes for the Voyage Management Systems (VMS), ECDIS-N, and the Submarine Multi Reconfigurable Training System (MRTS).

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>The MRTS family includes VA CLASS Torpedo Room, Emergency Diesel Generator, Weapons Launch Console Team Trainer, and 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, Periscope Simulation (PSIM), and Harbor Databases.</p> <p>[P40A / COMBAT CONTROL ACOUSTIC TRAINERS]: SUBMARINE COMMON OPERATIONAL ANALYSIS AND EMPLOYMENT TRAINER (COAET) COAET is an interactive, fundamental skills-level and employment skills trainer. It allows for introduction of new fleet requirements and upgrades. The purpose of these devices is to provide operator and introductory team training to submarine force personnel prior to entry into the Submarine Multi Mission Team Trainer (SMMTT). It also provides supplemental training to off-load the heavily utilized attack center trainers. COAET provides training utilizing partial tactical builds and emulations of the latest Sonar and Combat Control Systems. These devices provide an environment substantially equivalent to that found on board ship, thus enabling students to develop and maintain the attack center expertise necessary to support Fleet operations. Also provides funding for TECs, Virtualized Tactical Control (VTAC), Advanced Processing Build (APB)/ Technical Insertion (TI), and Sonar Tactical Decision Aid (STDA) implementation.</p> <p>SUBMARINE SONAR TRAINERS 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: Acoustic, 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 NAVSUBSCOL, Groton dictates the number and configuration of trainers provided.</p> <p>FY2017: Procures one kit and implements simulation upgrades to the SET as directed by the Type Commander.</p> <p>[P40A / ATTACK CENTER TRAINERS]: SUBMARINE MULTI MISSION TEAM TRAINER (SMMTT) To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment, includes funding for TECs.</p> <p>The Combat Control System (CCS) AN/BYG-1 is installed on SSN/SSBN/SSGN Class submarines, and there are currently plans to further upgrade these systems with the hardware revisions which provide enhanced warfighter capabilities. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) AN/BQQ-10 phased upgrades are being installed with the next revision which provides enhanced warfighter capabilities. These CCS and ARCI upgrades to the AN/BYG1 and BQQ-10 systems directly impact shore based Team Trainers. SMMTT also includes annual Tactical Imaging TI/APB upgrades that support multiple classes of submarines. The Submarine Multi-Mission Team Trainer (SMMTT) supports operator, employment, strike, and Battle Group training for enlisted and officer pipelines for these systems. The SMMTT provides operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency prior to ship deployment. SMMTT is also used for SSN/SSGN crew certification. SMMTT replaced all Military (MIL) Standard hardware in previous systems with commercial emulation hardware, enabling platform independence and wide area network capability. The use of Open Architecture (OA) trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine combat system. Plans are established to likewise upgrade submarine tactical systems to an OA, and the trainers will be compatible with the tactical interfaces. This program includes modifications to the functionality of the Periscope Simulator (PSIM) to provide common imaging training for CCS trainers and includes Electronic Surveillance Simulation Software. Recent tactical CCS change the interfaces for the software updates to the navigation submarine trainers.</p> <p>SMMTT is also used for SSGN crew certification prior to crew flyaway for crew swap out. The use of Open Architecture (OA) trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine combat system.</p> <p>Legacy SMMTT supports SSBN Crew Certification and pre-deployment training as required by the Type Commander. LSMMTT also supports SSNs that have not been modernized in the TI/APB process including SSN 774 class submarines. LSMMTT is a combination of tactical combat controls in sonar systems driven by simulation/stimulation devices and leverages additional trainer simulation/auxiliary ship systems. The VA SMMTT kit procurements are merged with the SMMTT kit upgrades resulting in an increase in unit cost.</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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>FY2017 procures 5 items: Procures one SSBN SMMTT Mod EDM, one SSN SMMTT EPM update (TI-18) to match the latest Fleet tactical build for SSNs and unique sensors; procures three SMMTT kit upgrades to appropriate APB and TI.</p> <p>[P40A / SSBN SMMTT STRATEGIC FORCES]: In FY17, the \$7.995M cost is for a complete new SSBN trainer. The increase in costs in FY18, and FY19 is due to additional Trainer Enhancement requirements directed by the TYCOM. The requirements include, but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM). Also included are the Uninterrupted Power Supply American Power Conversion (UPS/APC) procurements, system procurements of Touchscreens displays across various sites, and updates to the Torpedo Relevancy Model (TRM).</p> <p>[P40A / TD015: SNADIS]: TD015 SNADIS SUBMARINE NON-TACTICAL APPLICATIONS DELIVERY INTERFACE SYSTEM (SNADIS) NETWORK: This system has been identified by the Submarine Type Commanders and approved by CNO to enable access to all data required to support Fleet Operational, Training, and Administrative requirements through a single, common, force-wide information delivery application interface. This program is for technical data, logistics, and training delivery management. The program must operate within the IT21/NMCI network infrastructure; and should leverage both the VIRGINIA Class paperless ship initiatives and the Navy's non-tactical application development managed by SPAWAR, as well as recognize shipboard requirements for complete non-tactical applications integration. SNADIS program discontinues after FY11.</p> <p>[P3A / SMMTT PH3 MODS]: FY2017, FY2018, and FY2021 are hardware procurements. FY2019 procures software kits which are significantly less expensive than the hardware kits procured in the aforementioned fiscal years. FY2020 are hardware procurements with the (All World Environmental Simulator) AWESIM capability added in.</p> <p>FY2020 costs are higher than FY2019 due to the existing 2/4 tailored model SMMTT phase 3 hardware procurements. In FY2019, we are procuring mostly software kits, which cost less than hardware purchases.</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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance

P-1 Line Item Number / Title:
5661 / Submarine Training Device Mods

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

Line Item MDAP/MAIS Code: N/A **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 Training	P-5a		- / 299.635	- / -	- / -	- / 37.657	- / -	- / 37.657
P-3a	1 / TD009 SMMTT PH3 MODIFICATIONS (TBD)			- / 121.273	- / -	- / -	- / 10.363	- / -	- / 10.363
P-3a	2 / TD009 SMMTT PH3 MODS GUAM (TBD)			- / 7.938	- / -	- / -	- / -	- / -	- / -
P-3a	3 / TD009 SMMTT PH3 MODS SEAWOLF SMMTT (TBD)			- / 6.378	- / -	- / -	- / -	- / -	- / -
P-3a	4 / TD009 SMMTT PH3 MODS TI-OX SMMTT (TBD)			- / 18.055	- / -	- / -	- / -	- / -	- / -
P-3a	5 / TD009 SMMTT PH3 MODS VA CLASS SMMTT (TBD)			- / 11.776	- / -	- / -	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 465.055	- / -	- / -	- / 48.020	- / -	- / 48.020

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 Training	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / TD009 SMMTT PH3 MODIFICATIONS (TBD)			- / 19.514	- / 8.788	- / 14.148	- / 11.199	- / -	- / 185.285
P-3a	2 / TD009 SMMTT PH3 MODS GUAM (TBD)			- / -	- / -	- / -	- / -	- / -	- / 7.938
P-3a	3 / TD009 SMMTT PH3 MODS SEAWOLF SMMTT (TBD)			- / -	- / -	- / -	- / -	- / -	- / 6.378
P-3a	4 / TD009 SMMTT PH3 MODS TI-OX SMMTT (TBD)			- / -	- / -	- / -	- / -	- / -	- / 18.055
P-3a	5 / TD009 SMMTT PH3 MODS VA CLASS SMMTT (TBD)			- / -	- / -	- / -	- / -	- / -	- / 11.776
P-40	Total Gross/Weapon System Cost			- / 52.423	- / 50.375	- / 63.056	- / 64.329	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:

Note: The items contained within this budget line were funded in other lines in FY2016 (BLI 5662) and prior years.

SMMTT PH3 MODS

The increase in costs is due to additional Trainer Enhancement requirements directed by the TYCOM. The requirements include, but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM). Also included are the Uninterrupted Power Supply American Power Conversion (UPS/APC) procurements, system procurements of Touchscreens displays across various sites, and updates to the Torpedo Relevancy Model (TRM). These adjustments will increase overall system capability.

Beginning in FY2017, N97 funding in BLIs 1320, 2762, and 5662 will be budgeted/executed in BLI 5661.

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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 / 04 / 7 **P-1 Line Item Number / Title:** 5661 / Submarine Training Device Mods **Aggregated Items Title:** Submarine Training

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) HM&E TRAINERS																				
1.1) FIREFIGHTER TRAINER ⁽¹⁾	A		-	-	-	-	-	-	-	-	-	-	-	7.800	-	-	-	-	-	7.800
1.2) SUSTAINING TTE	A		-	-	36.409	-	-	-	-	-	-	-	-	0.424	-	-	-	-	-	0.424
1.3) SUBMARINE TRAINING DEVICE MODS	A		-	-	12.871	-	-	-	-	-	-	-	-	1.163	-	-	-	-	-	1.163
1.4) SCOT MODS	A		-	-	6.307	-	-	-	-	-	-	-	-	1.169	-	-	-	-	-	1.169
1.5) VSCOT MODS	A		-	-	5.483	-	-	-	-	-	-	-	-	0.908	-	-	-	-	-	0.908
Subtotal: 1) HM&E TRAINERS			-	-	61.070	-	-	-	-	-	-	-	-	11.464	-	-	-	-	-	11.464
2) ENGINEERING TRAINERS																				
2.1) CVN FIDE	A		-	-	14.997	-	-	-	-	-	-	-	-	3.006	-	-	-	-	-	3.006
2.2) SUBMARINE FIDE	A		-	-	26.436	-	-	-	-	-	-	-	-	1.600	-	-	-	-	-	1.600
Subtotal: 2) ENGINEERING TRAINERS			-	-	41.433	-	-	-	-	-	-	-	-	4.606	-	-	-	-	-	4.606
3) NAVIGATION TRAINING																				
3.1) SBT/SPAN	A		-	-	18.109	-	-	-	-	-	-	-	-	3.207	-	-	-	-	-	3.207
3.4) MINOR TRAINING SUPPORT EQUIPMENT	A		-	-	4.379	-	-	-	-	-	-	-	-	0.213	-	-	-	-	-	0.213
3.5) NAVIGATION TRAINER UPDATES	A		-	-	13.317	-	-	-	-	-	-	-	-	0.075	-	-	-	-	-	0.075
Subtotal: 3) NAVIGATION TRAINING			-	-	35.805	-	-	-	-	-	-	-	-	3.495	-	-	-	-	-	3.495
4) COMBAT CONTROL ACOUSTIC TRAINERS																				
4.1) SET ^(†)	A		-	-	9.557	-	-	-	-	-	-	1,287K	1	1.287	-	-	-	1,287K	1	1.287
4.3) COAET MODIFICATIONS ^(†)	A		792,166.67	48	38.024	-	-	-	-	-	-	1,083K	4	4.332	-	-	-	1,083K	4	4.332
Subtotal: 4) COMBAT CONTROL ACOUSTIC TRAINERS			-	-	47.581	-	-	-	-	-	-	-	-	5.619	-	-	-	-	-	5.619
5) ATTACK CENTER TRAINERS																				
5.1) EPM - SMMTT SSN ^{(2)(†)}	A		2,181K	13	28.352	-	-	-	-	-	-	2,153K	1	2.153	-	-	-	2,153K	1	2.153
5.4) TECH SUPPORT	A		-	-	35.616	-	-	-	-	-	-	-	-	2.325	-	-	-	-	-	2.325
5.5) MODS VA CLASS SMMTT EPM	A		3,127K	5	15.633	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6) SSBN SMMTT STRATEGIC FORCES ^(†)	A		-	-	-	-	-	-	-	-	-	7,995K	1	7.995	-	-	-	7,995K	1	7.995

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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 / 04 / 7 **P-1 Line Item Number / Title:** 5661 / Submarine Training Device Mods **Aggregated Items Title:** Submarine Training

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)
5.7) MODS OBTT SMMTT	A		-	-	3.750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 5) ATTACK CENTER TRAINERS			-	-	83.351	-	-	-	-	-	-	-	-	-	-	-	-	-	12.473	
6) TD015: SNADIS																				
6.1) MODIFICATIONS	A		-	-	30.395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Subtotal: 6) TD015: SNADIS			-	-	30.395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total			-	-	299.635	-	-	-	-	-	-	-	-	-	-	-	-	-	37.657	

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) TYCOM approved the requirement and funding to replace all existing Firefighter Trainers with a new Firefighter Trainer that meets the rigors of the USS MIAMI Flag Panel Fire Review. The Next Generation Firefighter Trainer is the replacement trainer for all seven submarine sites. Funds will procure the Next Generation Firefighting Trainers that will permit high temperature environments and multi-level firefighting scenarios for Submarine Crews to rehearse basic and team firefighting proficiency. This trainer will replace the brick and mortar low temperature firefighting trainers that have reached end of service life.

(2) The increase in costs in FY18 and FY19 is due to additional Trainer Enhancement requirements directed by TYCOM, which includes Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM)

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7			P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods					Aggregated Items: Submarine Training				
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) COMBAT CONTROL ACOUSTIC TRAINERS												
4.1) SET		2017	NSWC CD / BETHESDA, MD	Reqn	NSWC CD	Feb 2017	Feb 2017	1	1,287K	N	Feb 2016	
4.3) COAET MODIFICATIONS		2017	NSWC CD / BETHESDA, MD	Reqn	NSWC CD	Oct 2016	Jun 2017	4	1,083K	N	Jun 2016	
5) ATTACK CENTER TRAINERS												
5.1) EPM - SMMTT SSN ⁽²⁾		2017	NSWC CD / BETHESDA, MD	C / TBD	NSWC CD	Oct 2016	Oct 2016	1	2,153K	N		
5.6) SSBN SMMTT STRATEGIC FORCES		2017	NSWC CD / BETHESDA, MD	Reqn	NSWC	Jan 2017	Apr 2017	1	7,995K	N	Sep 2017	

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods				Modification Number / Title: 1 / TD009 SMMTT PH3 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>	121.273	-	-	10.363	-	10.363	19.514	8.788	14.148	11.199	-	185.285
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	121.273	-	-	10.363	-	10.363	19.514	8.788	14.148	11.199	-	185.285
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	121.273	-	-	10.363	-	10.363	19.514	8.788	14.148	11.199	-	185.285

(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:

SMMTT upgrades to hardware and simulation to match current Fleet configurations.

[SMMTT PH3 MODS] SMMTT upgrades to hardware and simulation to match current Fleet configurations. FY2017, FY2018, and FY2021 are hardware procurements.

FY2019 procures software kits which are significantly less expensive than the hardware kits procured in the aforementioned fiscal years.

FY2020 are hardware procurements with the (All World Environmental Simulator) AWESIM capability added in.

FY2020 costs are higher than FY2019 due to the existing 2/4 tailored model SMMTT Phase 3 hardware procurements. In FY2019, we are procuring mostly software kits, which cost less than hardware purchases.

Unit costs are significantly higher in FY2018 due to additional Trainer Enhancement requirements directed by the TYCOM. The requirements include, but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM). Also included are the Uninterrupted Power Supply American Power Conversion (UPS/APC) procurements, system procurements of Touchscreens displays across various sites, and updates to the Torpedo Relevancy Model (TRM).

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS

Models of Systems Affected: SMMTT PH3 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

Modification Item 1 of 1: TD009 SMMTT PH3 MODIFICATIONS												
B Kits												
Recurring												
1.1.1) SMMTT PH3 MODS - NonOrganic ⁽³⁾	36 / 117.701	- / -	- / -	3 / 9.623	- / -	3 / 9.623	3 / 18.775	6 / 8.028	4 / 13.373	3 / 10.411	- / -	55 / 177.911
<i>Subtotal: Recurring</i>	- / 117.701	- / -	- / -	- / 9.623	- / -	- / 9.623	- / 18.775	- / 8.028	- / 13.373	- / 10.411	- / -	- / 177.911
<i>Subtotal: TD009 SMMTT PH3 MODIFICATIONS</i>	36 / 117.701	- / -	- / -	3 / 9.623	- / -	3 / 9.623	3 / 18.775	6 / 8.028	4 / 13.373	3 / 10.411	- / -	55 / 177.911
<i>Subtotal: Procurement, All Modification Items</i>	- / 117.701	- / -	- / -	- / 9.623	- / -	- / 9.623	- / 18.775	- / 8.028	- / 13.373	- / 10.411	- / -	- / 177.911

Installation

Modification Item 1 of 1: TD009 SMMTT PH3 MODIFICATIONS	- / 3.572	- / -	- / -	- / 0.740	- / -	- / 0.740	- / 0.739	- / 0.760	- / 0.775	- / 0.788	- / -	- / 17.374
<i>Subtotal: Installation</i>	- / 3.572	- / -	- / -	- / 0.740	- / -	- / 0.740	- / 0.739	- / 0.760	- / 0.775	- / 0.788	- / -	- / 17.374

Total

Total Cost (Procurement + Support + Installation)	121.273	-	-	10.363	-	10.363	19.514	8.788	14.148	11.199	-	185.285
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS

Modification Item 1 of 1: TD009 SMMTT PH3 MODIFICATIONS

Manufacturer Information

Manufacturer Name: NSWC CD/NUWC NPT ⁽⁴⁾				Manufacturer Location: BETHESDA, MD/ NEWPORT, RI			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 17			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates			Jan 2017	Jan 2018	Jan 2019	Jan 2020	Jan 2021
Delivery Dates			May 2018	May 2019	May 2020	May 2021	May 2022

Installation Information

Method of Implementation: AIT:: Installation Name: SMMTT PH3 MODS

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	30 / 3.572	- / -	- / -	2 / 0.740	- / 0.000	2 / 0.740	1 / 0.369	- / -	- / -	- / -	- / 0.000	33 / 4.681
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.370	1 / 0.375	- / -	- / -	- / -	3 / 0.745
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.385	2 / 0.387	- / -	- / -	3 / 0.772
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.388	3 / 0.390	- / -	6 / 0.778
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.398	2 / -	4 / 0.398
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / -	3 / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	30 / 3.572	- / -	- / -	2 / 0.740	- / -	2 / 0.740	3 / 0.739	2 / 0.760	5 / 0.775	5 / 0.788	5 / -	52 / 17.374

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	30	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	-	-	2	-	-	-	5	-	3	-	2	5	52
Out	30	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	3	-	-	-	2	-	-	-	5	-	3	-	2	5	52

Footnotes:

⁽³⁾ Production lead time increased from an average of 11 months to 17 months due to an increase in Tactical TI/APB scheduled deliveries to the fleet and Engineering Production Model. FY2018 & FY2019 installation unit cost increase for 2 SSBN kits (1 per fiscal year) due to receiving additional Trainer Enhancement requirements directed by the TYCOM. These kits will require a rip out of the obsolete existing equipment and modifications to support higher-fidelity equipment but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM) replacement. Also included are the Uninterrupted Power Supply/ American Power Conversion (UPS/APC) procurements, system procurements of Touchscreens displays across various sites,

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS

and updates to the Torpedo Relevancy Model(TRM). Procurements are installed within the two fiscal years immediately after the buy. Long Lead Times can extend up to 17 months. FY2020 is procuring 4 kits with two being installed in FY2021 and the remaining two in FY2022. FY2022 is too far out and is not reflected in DON17 budget exhibits.

⁽⁴⁾ NSWC CD & NUWC NPT are collaborating warfare centers that manage and execute the SMMTT as directed by NAVSEA. Both warfare centers function as a prime for this effort. However, for cost efficiency purposes, they compete their cognizant tasks among multiple vendors with multiple orders to provide equipment/software in a timely manner to meet the fleet required training dates. As such, the SMMTT delivery is not linked to any single contract date.

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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 / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 2 / TD009 SMMTT PH3 MODS GUAM
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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>	7.938	-	-	-	-	-	-	-	-	-	-	7.938
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	7.938	-	-	-	-	-	-	-	-	-	-	7.938
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	7.938	-	-	-	-	-	-	-	-	-	-	7.938

(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 SMMTT trainer to ships in Guam.

[GUAM SMMTT] Provides SMMTT trainer to ships in Guam.

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7					P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods					Modification Number / Title: 2 / TD009 SMMTT PH3 MODS GUAM			
Models of Systems Affected: SMMTT PH3 MODS GUAM				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:</i> TD009 SMMTT PH3 MODS GUAM													
B Kits													
Non-Recurring													
1.1.1) GUAM SMMTT - NonOrganic	1 / 7.498	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.498	
<i>Subtotal: Non-Recurring</i>	- / 7.498	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.498	
<i>Subtotal: TD009 SMMTT PH3 MODS GUAM</i>	1 / 7.498	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 7.498	
<i>Subtotal: Procurement, All Modification Items</i>	- / 7.498	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 7.498	
Installation													
<i>Modification Item 1 of 1:</i> TD009 SMMTT PH3 MODS GUAM													
<i>Subtotal: Installation</i>	- / 0.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.440	
Total													
Total Cost (Procurement + Support + Installation)	7.938	-	-	-	-	-	-	-	-	-	-	7.938	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 2 / TD009 SMMTT PH3 MODS GUAM

Modification Item 1 of 1: TD009 SMMTT PH3 MODS GUAM

Manufacturer Information

Manufacturer Name: NSWC CD	Manufacturer Location: BETHESDA, MD
Administrative Leadtime (in Months): 6	Production Leadtime (in Months): 10

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: GUAM SMMTT

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 / 0.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	1 / 0.440
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	1 / 0.440	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.440

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 / 04 / 7				P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods				Modification Number / Title: 3 / TD009 SMMTT PH3 MODS SEAWOLF SMMTT				

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>	6.378	-	-	-	-	-	-	-	-	-	-	6.378
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	6.378	-	-	-	-	-	-	-	-	-	-	6.378
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	6.378	-	-	-	-	-	-	-	-	-	-	6.378
<i>(The following Resource Summary rows are for 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 SSN21 SEAWOLF Class SMMTT systems.

OSD12 comment - Type commander cancelled TI08 install and directed TI12 be delivered to better support SSN21 class modernization.

[SEAWOLF SMMTT] Provides SSN21 SEAWOLF Class SMMTT systems.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 3 / TD009 SMMTT PH3 MODS SEAWOLF SMMTT

Models of Systems Affected: SMMTT PH3 MODS SEAWOLF SMMTT	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> TD009 SMMTT PH3 MODS SEAWOLF SMMTT												
B Kits												
Non-Recurring												
1.1.1) SEAWOLF SMMTT - NonOrganic ⁽⁵⁾	2 / 6.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 6.178
<i>Subtotal: Non-Recurring</i>	- / 6.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.178
<i>Subtotal: TD009 SMMTT PH3 MODS SEAWOLF SMMTT</i>	2 / 6.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 6.178
<i>Subtotal: Procurement, All Modification Items</i>	- / 6.178	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 6.178
Installation												
<i>Modification Item 1 of 1:</i> TD009 SMMTT PH3 MODS SEAWOLF SMMTT	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200
<i>Subtotal: Installation</i>	- / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.200
Total												
Total Cost (Procurement + Support + Installation)	6.378	-	-	-	-	-	-	-	-	-	-	6.378

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 3 / TD009 SMMTT PH3 MODS SEAWOLF SMMTT

Modification Item 1 of 1: TD009 SMMTT PH3 MODS SEAWOLF SMMTT

Manufacturer Information

Manufacturer Name: New MFG - Name ⁽⁶⁾				Manufacturer Location: New MFG - Loc			
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: [none specified]:: Installation Name: SEAWOLF SMMTT

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 / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	2 / 0.200
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 0.200	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	2 / 0.200

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

Footnotes:

⁽⁵⁾ OSD-12 comment - Type commander cancelled T108 install and directed T112 be delivered to better support SSN21 class modernization.

⁽⁶⁾ See P3a remarks section.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods				Modification Number / Title: 4 / TD009 SMMTT PH3 MODS TI-OX SMMTT				

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>)	18.055	-	-	-	-	-	-	-	-	-	-	18.055
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	18.055	-	-	-	-	-	-	-	-	-	-	18.055
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	18.055	-	-	-	-	-	-	-	-	-	-	18.055
<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 Dollars</i>)	-	-	-	-	-	-	-	-	-	-	-	-

Description:

Provides SMMTT modifications to match Tactical advanced sensor configurations.

[MODS TI-OX SMMTT] Provides SMMTT modifications to match Tactical advanced sensor configurations.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 4 / TD009 SMMTT PH3 MODS TI-OX SMMTT

Models of Systems Affected: SMMTT PH3 MODS TI-OX SMMTT	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: TD009 SMMTT PH3 MODS TI-OX SMMTT												
B Kits												
Recurring												
1.1.1) MODS TI-OX SMMTT - NonOrganic ⁽⁷⁾	6 / 17.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 17.400
<i>Subtotal: Recurring</i>	- / 17.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.400
<i>Subtotal: TD009 SMMTT PH3 MODS TI-OX SMMTT</i>	6 / 17.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 17.400
<i>Subtotal: Procurement, All Modification Items</i>	- / 17.400	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 17.400

Installation

Modification Item 1 of 1: TD009 SMMTT PH3 MODS TI-OX SMMTT	- / 0.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.655
<i>Subtotal: Installation</i>	- / 0.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.655

Total

Total Cost (Procurement + Support + Installation)	18.055	-	-	-	-	-	-	-	-	-	-	18.055
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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 4 / TD009 SMMTT PH3 MODS TI-OX SMMTT

Modification Item 1 of 1: TD009 SMMTT PH3 MODS TI-OX SMMTT

Manufacturer Information

Manufacturer Name: NSWC CD ⁽⁸⁾				Manufacturer Location: BETHESDA, MD			
Administrative Leadtime (in Months): 6				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: AIT:: Installation Name: MODS TI-OX SMMTT

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 / 0.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	6 / 0.655
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	6 / 0.655	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	6 / 0.655

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

Footnotes:

⁽⁷⁾ FY14 SMMTT TI-OX provides a SSN SMMTT variant to allow fleet training in Groton. This technology already exists in fleet submarines, thus allowing easier implementation into the trainer baseline. Easier implementation will decrease the amount of leadtime needed for installation time for FY14 procurement.

⁽⁸⁾ See P3A remarks section for additional information. 12 month leadtime is an average. FY14 leadtimes are slightly less.

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods				Modification Number / Title: 5 / TD009 SMMTT PH3 MODS VA CLASS SMMTT				

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>)	11.776	-	-	-	-	-	-	-	-	-	-	11.776
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	11.776	-	-	-	-	-	-	-	-	-	-	11.776
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	11.776	-	-	-	-	-	-	-	-	-	-	11.776
<i>(The following Resource Summary rows are for 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 VA Class functions to SMMTT.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 5 / TD009 SMMTT PH3 MODS VA CLASS SMMTT

Models of Systems Affected: SMMTT PH3 MODS VA CLASS SMMTT	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> TD009 SMMTT PH3 MODS VA CLASS SMMTT												
B Kits												
Recurring												
1.1.1) MODS VA CLASS SMMTT - NonOrganic ⁽⁹⁾	3 / 11.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 11.176
<i>Subtotal: Recurring</i>	- / 11.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.176
<i>Subtotal: TD009 SMMTT PH3 MODS VA CLASS SMMTT</i>	3 / 11.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 11.176
<i>Subtotal: Procurement, All Modification Items</i>	- / 11.176	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 11.176
Installation												
<i>Modification Item 1 of 1:</i> TD009 SMMTT PH3 MODS VA CLASS SMMTT	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.600
<i>Subtotal: Installation</i>	- / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.600
Total												
Total Cost (Procurement + Support + Installation)	11.776	-	-	-	-	-	-	-	-	-	-	11.776

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5661 / Submarine Training Device Mods	Modification Number / Title: 5 / TD009 SMMTT PH3 MODS VA CLASS SMMTT

Modification Item 1 of 1: TD009 SMMTT PH3 MODS VA CLASS SMMTT

Manufacturer Information

Manufacturer Name: NSWC CD ⁽¹⁰⁾				Manufacturer Location: BETHESDA, MD			
Administrative Leadtime (in Months): 6				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: AIT:: Installation Name: MODS VA CLASS SMMTT

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 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	3 / 0.600
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	3 / 0.600	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	3 / 0.600

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	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Out	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3

Footnotes:

⁽⁹⁾ The production dates for FY08 were DEC07 - JAN10 (26 Months) for the first kit. The second kit DEC08-SEP10 (22 Months). Third kit is NOV10-MAY11 (6 months; easier purchase/install with lessons learned incorporated). Therefore, the range of 6-22 months production time is provided.

⁽¹⁰⁾ See P3a remarks sections

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance	P-1 Line Item Number / Title: 5662 / Training Device Mods
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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>	0.002	70.672	99.707	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) <i>(\$ in Millions)</i>	0.002	70.672	99.707	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority <i>(\$ in Millions)</i>	0.002	70.672	99.707	-	-	-	-	-	-	-	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>	-	0.231	0.133	0.119	-	0.119	-	-	-	-	-	0.483
Flyaway Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

Description:

ORDNANCE SUPPORT EQUIPMENT provides funds for the procurement of gun, missile, and ASW fire control and support equipment, mine components, FBM support equipment, and support for other expendable ordnance. This budget activity is coordinated by the Naval Sea Systems Command.

This line also provides funds to modify/upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment and to implement Training Enhancement Changes (TECs) to the trainer systems capabilities.

[P40A / TD002: SUBMARINE TRAINING DEVICE MODS]: Provides funding for modifications which are upgrades to submarine training systems and TECs which are centrally managed systems. These improvements/upgrades are required to keep training systems, such as the Ship Control Operator Trainer (SCOT) and Submarine Bridge Trainer (SBT), compatible with equivalent changes made to fleet operational equipment and to change trainer capabilities to meet emergent training requirements.

[P40A / TD006: SUB COAET]: TD006 SUBMARINE COMMON OPERATIONAL ANALYSIS AND EMPLOYMENT TRAINER (COAET)

The COAET is an interactive, fundamental skills-level and employment skills trainer. It allows for introduction of new fleet requirements and upgrades. The purpose of these devices is to provide operator and introductory team training to submarine force personnel prior to entry into the full-up Submarine Multi Mission Team Trainer (SMMTT). It also provides supplemental training to off-load the heavily utilized attack center trainers. COAET provides training utilizing partial tactical builds and emulations of the latest Sonar and Combat Control Systems. These devices provide an environment substantially equivalent to that found on board ship, thus enabling students to develop and maintain the attack center expertise necessary to support Fleet operations. Also provides funding for TECs, integration of Acoustic Analysis Trainer (AAT), Virtualized Tactical Control (VTAC), Advanced Processing Build (APB)/ Technical Insertion (TI), and Sonar Tactical Decision Aid (STDA) implementation.

[P40A / TD009: SMMTT PH3]: TD009 SUBMARINE MULTI MISSION TEAM TRAINER (SMMTT) To achieve desired submarine force readiness levels, it is necessary to construct highly sophisticated shore based Combat System Team Trainers capable of training personnel in all aspects of submarine approach, attack and surveillance operations in a controlled, simulated environment. Includes funding for TECs. The Combat Control System (CCS) AN/BYG-1 is installed on SSN/SSBN/SSGN Class submarines, and there are currently plans to further upgrade these systems with the hardware revisions which provide enhanced warfighter capabilities. The Tactical Acoustic Rapid COTS (commercial-off-the-shelf) Insertion (ARCI) AN/BQQ-10 phased upgrades are being installed with the next revision which provides enhanced warfighter capabilities. These CCS and ARCI upgrades to the AN/BYG1 and BQQ-10 systems directly impact shore based Team Trainers. SMMTT also includes annual Tactical Imaging TI/APB upgrades that support multiple classes of submarines. The Submarine Multi-Mission Team Trainer (SMMTT) supports operator, employment, strike, and Battle Group training for enlisted and officer pipelines for these systems. The SMMTT provides operators and combat teams the opportunity to train ashore, prior to, and between deployments. The shore based training provides a means of maintaining team proficiency

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5662 / Training Device Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>prior to ship deployment. SMMTT is also used for SSN/SSGN crew certification. SMMTT replaced all Military (MIL) Standard hardware in previous systems with commercial emulation hardware, enabling platform independence and wide area network capability. The use of Open Architecture (OA) trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine combat system. Plans are established to likewise upgrade submarine tactical systems to an OA, and the trainers will be compatible with the tactical interfaces. This program includes modifications to the functionality of the Periscope Simulator (PSIM) to provide common imaging training for CCS trainers and includes Electronic Surveillance Simulation Software. Recent tactical CCS change the interfaces for the software updates to the navigation submarine trainers.</p> <p>SMMTT is also used for SSGN crew certification prior to crew flyaway for crew swapout. The use of Open Architecture (OA) trainer systems allows for the continuous growth of functional flexibility ultimately leading to employment training conducted for any submarine combat system.</p> <p>Legacy SMMTT supports SSBN Crew Certification and predeployment training as required by the Type Commander. LSMMTT also supports SSNs that have not been modernized in the TI/APB process including SSN 774 class submarines. LSMMTT is a combination of tactical combat controls in sonar systems driven by simulation/stimulation devices and leverages additional trainer simulation/auxiliary ship systems. The VA SMMTT kit procurements are merged with the SMMTT kit upgrades resulting in an increase in unit cost.</p> <p>FY15 procures 2 items: Procures one SMMTT EPM updates to match the latest Fleet tactical build for SSNs and unique sensors; procures one SMMTT kit upgrade to appropriate APB and TI.</p> <p>FY16 procures 4 items: Procures one SSBN SMMTT Mod EDM, one SMMTT EPM updates to match the latest Fleet tactical build for SSNs and unique sensors; procures two SMMTT kit upgrades to appropriate APB and TI.</p> <p>[P40A / TD015: SNADIS]: TD015 SNADIS SUBMARINE NON-TACTICAL APPLICATIONS DELIVERY INTERFACE SYSTEM (SNADIS) NETWORK: This system has been identified by the Submarine Type Commanders and approved by CNO to enable access to all data required to support Fleet Operational, Training, and Administrative requirements through a single, common, force-wide information delivery application interface. This program is for technical data, logistics, and training delivery management. The program must operate within the IT21/NMCI network infrastructure; and should leverage both the VIRGINIA Class paperless ship initiatives and the Navy's non-tactical application development managed by SPAWAR, as well as recognize shipboard requirements for complete non-tactical applications integration. SNADIS program discontinues after FY11.</p> <p>[P5 / TS004 Surface Training Device Mods]: This line provides funds to procure, modify and upgrade trainers to include Aegis Weapon Systems, Aegis Ashore, Littoral Combat Ship (LCS), DDG 1000, Ship Self Defense System (SSDS), Navy Integrated Fire Control - Counter Air (NIFC-CA), and other Surface Warfare related Training Programs; Navigation, Hull, Mechanical and Electrical (HM&E), combat systems, engineering, damage control and amphibious warfare individual and team Technical Training Equipment, Training Devices, Training Unique Equipment and Training systems. Funds ensure alignment between Surface Learning Centers and Fleet Concentration Area training systems and fleet training requirements as dictated by the Surface and Expeditionary Warfare Training Plan (SEWTP). Additionally, funds support ship on-board training curriculum for the purpose of maintaining perishable operator and maintenance skills.</p> <p>[P5 / Combined IAMD/ASW Trainer (CIAT)]: Combined Integrated Air and Missile Defense (IAMD)/Anti-submarine Warfare (ASW) Trainer (CIAT): From the Aegis Weapon System/SPY Radar Readiness Task Force, Chief of Naval Operations (OPNAV) sponsored Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Naval Integrated Fire Control-Counter Air (NIFC-CA), and C5I training requirements documents, one of the areas identified for long term investment was the requirement for a high fidelity integrated air and missile defense and anti-submarine warfare training capability. Due to the cost prohibitive realities associated with modifying onboard high fidelity training systems, which currently meet only 60% of the CNO requirement for ship training systems to be commensurate with tactical system capability, this shore-based, high fidelity trainer is being procured. The CIAT will field in the Fleet Concentration Areas of San Diego, Yokosuka, Pearl Harbor, and Norfolk in support of program of record Advanced Warfare Training (AWT). The effort began in FY 14 and supports procurement and installation of seven systems across the FYDP. Installations will occur in San Diego, Yokosuka, Pearl Harbor, Dahlgren and Norfolk. Funds also include costs associated with tactical and other software licensing, Information Assurance, computer program corrections and sustainment to ensure alignment with DON CIO Cyber requirements and ship tactical modernization.</p> <p>[P5 / Navy Training System Plan (NTSP TTE/TD Mods)]: Funds 15 surface and expeditionary training systems in multiple school houses in accordance with the results of CNO directed and OPNAV and Fleet sponsored studies, NTSP updates, and Technical Training Audits from 2011 through 2014. One of the key items identified in the Fleet Review Panel of Surface Force Readiness, LPD 17 Class Wholeness Task Force, (Mine Countermeasures (MCM) Readiness Task Force, Navigation Wholeness Study, Chief of Naval Operations (OPNAV)-sponsored Surface Engineering Training Wholeness Review, Littoral Combat</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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5662 / Training Device Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>Ship (LCS) Front End Analysis (FEA), DDG 1000 wholeness review, and LHD 8/ LHA 6 Training Requirements Planning and Programming (TRPPM) analysis done by the Surface Warfare Enterprise was the outdated or lack of training equipment in the schoolhouses. Based on this analysis, \$16.2M includes requirements identified in approximately 80 Navy Training System Plan updates and 53 Technical Training Course Audits. This investment will be for the procurement and installation of Training Equipment at Learning Centers to keep training courses in alignment with current configuration of equipment in the fleet. Investment ensures Surface Warfare Training Continuums are capable of meeting training requirements directly supporting readiness for the following systems/courses:</p> <ol style="list-style-type: none"> 1. Collection, Holding and Transfer (CHT) 2. Controllable Pitch Propeller 3. LPD 17 Class Smoke Ejection 4. Damage Control 5. Firefighting 6. Fuel Oil Systems 7. Anchoring, Mooring and Towing 8. Amphibious Assault Vehicle Handling, Stowage and Support 9. Handling and Stowing Boats and Small Craft 10. Hull Equipment 11. Shipboard Crane Systems 12. Underway Replenishment Systems 13. CIN A-651-0069 Controls, Governors, and Regulator Maintenance 14. CIN A-4H-0157 Advanced Steam Course 15. Fiber Optic Maintenance <p>[P5 / CSCS Modernization/Aegis Capability Build (ACB) Training Systems]: The Aegis Weapon System/SPY Radar Readiness Task Force, OPNAV-sponsored Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Aegis Ashore, Naval Integrated Fire Control-Counter Air (NIFC-CA) and C5I training requirements document that there is training shortfall for procurement and installation of ACB Technical Training Equipment (TTE) Simulation/Stimulation at the Aegis Training and Readiness Center (ATRC) Learning Site. The current ATRC training systems utilize expensive and maintenance-intensive ruggedized shipboard equipment which is obsolete and unsupported. The \$5.0M in FY15 provides for hardware, updated software and installation of two new trainers which leverage IAMD components of the Combined IAMD/ASW Trainer (CIAT) technology and equipment, thus reducing Total Ownership Cost (TOC). Without this funding, existing training labs at ATRC will not be upgraded or maintained to provide accurate training and the required training lab for ACB Program of Record will not be completed. Aegis operators and maintainers will not be trained on accurate systems which will directly impact fleet readiness.</p> <p>[P5 / Technical Training Equipment Modifications]: Funds procure schoolhouse modifications of end items in support of fleet training requirements including Hull Mechanical and Electrical (HM&E), and Combat Systems (CS) technical training equipment (TTE) for the training activities. Provides equipment to augment existing TTE due to increased student throughput, replaces equipment beyond economical repair and procures new equipment.</p> <p>[P5 / Navigation Training Continuum]: Funds provide for implementation of formal navigation continuum training courses of instruction for enlisted Quartermasters, for enlisted navigation (non-maintenance) watch standers, and updates the Officer Navigation Training Continuum and improves waterfront navigation operator training to meet mandated requirements in the Surface Navigation System Navy Training Systems Plan. Funds provide for curriculum materials and training equipment.</p> <p>[P5 / (EPAA) Aegis Ballistic Missile Defense (BMD) Ashore Team Trainer]: Funds the training system to train Navy Sailors who will man European Phased Adaptive Approach (EPAA) land-based BMD facilities in Poland and Romania. The Aegis Ashore Team Trainer (AATT) at Dam Neck, VA will serve as the single site for individual watch team tactical training, certification events, and sustainment training for Aegis Ashore rotational crews assigned to AA BMD Host Nation Sites.</p> <p>[P5 / Multi-Purpose Supporting Arms Trainer (MSAT)]: Funds for trainer system upgrades for 3 MSATs to include functionality upgrades to incorporate new equipment/ hardware and procedural changes to maintain training system annual certification requirements.</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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5662 / Training Device Mods
ID Code (A=Service Ready, B=Not Service Ready): A	Program Elements for Code B Items: N/A	Other Related Program Elements: N/A
Line Item MDAP/MAIS Code: N/A	Item MDAP/MAIS Code(s): N/A	
<p>[P5 / LHA 6 and LHD 8 Life Cycle Training]: This line procures maintainer/operator training equipment and software applications for LHA-6/LHD-8 engineering systems in support of multiple courses of instruction at SWOS Learning Center Great Lakes, Norfolk, and San Diego, as required by several Navy Training System Plans (NTSPs).</p> <p>[P5 / SURFACE MINOR MODS]: Funds modernization for 10 systems and sustainment for over 100 surface and expeditionary training systems in accordance with the results of CNO directed and OPNAV and Fleet sponsored studies from 2009 through 2013. Specific studies of surface training systems include: Fleet Review Panel of Surface Force Readiness, Aegis Weapon System/SPY Radar Readiness Task Force, LPD 17 Class Wholeness Task Force, Mine Countermeasures (MCM) Readiness Task Force, Navigation Wholeness Study, OPNAV-sponsored Surface Engineering Training Wholeness Review, Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Aegis Ashore, Naval Integrated Fire Control-Counter Air (NIFC-CA) and C5I training requirements documents, Littoral Combat Ship (LCS) Front End Analysis (FEA), DDG 1000 wholeness review, LHD 8/ LHA 6 Training Requirements Planning and Programming (TRPPM), Commander Naval Surface Forces (CNSF) manpower initiatives impact on readiness, and the Navy Inspector General (IG) report on Computer Based Training (CBT). The extensive inventory of training systems to support 16 classes of ships requires continual modernization and modification to ensure alignment with fleet systems while addressing technology obsolescence issues. Increased funding is budgeted to modernize the following 10 systems:</p> <ol style="list-style-type: none"> 1. Anti-Submarine Tactical Air Controller (ASTAC) Simulation Upgrade 2. Damage Control Wet Trainers Upgrades/Refresh 3. DDG 51 Machinery Control System Maintenance Trainer 4. Multi-Mission Team Trainer Upgrades/Lab Refresh 5. Electrical Maintenance Training 6. Air Conditioning and Refrigeration (AC&R) Maintenance Training 7. Deck System Equipment Training 8. Marine Sanitation Devices 9. LCAC Team Trainer Overhaul/Upgrades 10. Firefighting Team Trainers Upgrades/Refresh 		

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance

P-1 Line Item Number / Title:
5662 / Training Device Mods

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

Line Item MDAP/MAIS Code: N/A **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 Training Device Mods	P-5a		- / 0.001	- / 12.333	- / 15.975	- / -	- / -	- / -
P-5	1 / TS004 Surface Training Device Mods [TS004]			- / 0.001	- / 54.904	- / 73.054	- / -	- / -	- / -
P-3a	1 / TD009 SMMTT PH3 MODIFICATIONS (TBD)			- / 0.000	- / 3.435	- / 10.678	- / -	- / -	- / -
P-40	Total Gross/Weapon System Cost			- / 0.002	- / 70.672	- / 99.707	- / -	- / -	- / -

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 Training Device Mods	P-5a		- / -	- / -	- / -	- / -	- / -	- / -
P-5	1 / TS004 Surface Training Device Mods [TS004]			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / TD009 SMMTT PH3 MODIFICATIONS (TBD)			- / -	- / -	- / -	- / -	Continuing	Continuing
P-40	Total Gross/Weapon System Cost			- / -	- / -	- / -	- / -	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:

Note: The items contained within this budget line were funded in other lines in FY14 and prior.

TD009: SMMTT PH3 MODS

The increase in costs beginning in FY16 is due to additional Trainer Enhancement requirements directed by the TYCOM. The requirements include, but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM). Also included are the Uninterrupted Power Supply American Power Conversion(UPS/APC) procurements, system procurements of Touchscreens displays across various sites, and updates to the Torpedo Relevancy Model(TRM). These adjustments will increase overall system capability.

Beginning in FY17, Submarine Training Device Mods are being budgeted/executed in BLI 5661. Surface Training Device Mods are being budgeted/executed in BLI 5664 (PBIS Issue 64068).

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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 / 04 / 7 **P-1 Line Item Number / Title:** 5662 / Training Device Mods **Aggregated Items Title:** Submarine Training Device Mods

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) TD002: SUBMARINE TRAINING DEVICE MODS																				
1.1) SUBMARINE TRAINING DEVICE MODS	A		-	-	-	-	-	1.121	-	-	1.141	-	-	-	-	-	-	-	-	-
1.2) SCOT MODS	A		-	-	-	-	-	1.126	-	-	1.146	-	-	-	-	-	-	-	-	-
Subtotal: 1) TD002: SUBMARINE TRAINING DEVICE MODS			-	-	0.000	-	-	2.247	-	-	2.287	-	-	-	-	-	-	-	-	-
2) TD006: SUB COAET																				
2.1) MODIFICATIONS ^(†)	A		-	-	-	1,043K	4	4.172	1,062K	3	3.185	-	-	-	-	-	-	-	-	-
Subtotal: 2) TD006: SUB COAET			-	-	0.000	-	-	4.172	-	-	3.185	-	-	-	-	-	-	-	-	-
3) TD009: SMMTT PH3⁽¹⁾																				
3.1) EPM - SMMTT SSN ⁽²⁾	A		-	-	-	2,074K	1	2.074	3,231K	1	3.231	-	-	-	-	-	-	-	-	-
3.2) TECH SUPPORT	A		-	-	-	-	-	3.840	-	-	3.272	-	-	-	-	-	-	-	-	-
3.3) MODS VA CLASS SMMTT EPM	A		-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.4) SSBN SMMTT STRATEGIC FORCES ^(†)	A		-	-	-	-	-	-	4,000K	1	4.000	-	-	-	-	-	-	-	-	-
Subtotal: 3) TD009: SMMTT PH3			-	-	0.001	-	-	5.914	-	-	10.503	-	-	-	-	-	-	-	-	-
Total			-	-	0.001	-	-	12.333	-	-	15.975	-	-	-	-	-	-	-	-	-

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 \$4M amount in FY16 is for the 1st SSBN EDM.

(2) The increase in costs in FY16 is due to additional Trainer Enhancement requirements directed by TYCOM, which includes Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM)

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Exhibit P-5a, Procurement History and Planning: PB 2017 Navy								Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7			P-1 Line Item Number / Title: 5662 / Training Device Mods					Aggregated Items: Submarine Training Device Mods				
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) TD006: SUB COAET												
2.1) MODIFICATIONS		2015	NSWC CD / BETHESDA, MD	Reqn	NSWC	Oct 2014	Jun 2015	4	1,043K	N	Sep 2015	
2.1) MODIFICATIONS		2016	NSWC CD / BETHESDA, MD	Reqn	NSWC	Oct 2015	Jun 2016	3	1,062K	N	Sep 2016	
3) TD009: SMMTT PH3												
3.4) SSBN SMMTT STRATEGIC FORCES		2016	NSWC CD / BETHESDA, MD	Reqn	NSWC	Jan 2016	Apr 2016	1	4,000K	N	Sep 2016	

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5662 / Training Device Mods	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]

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)	0.001	54.904	73.054	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.001	54.904	73.054	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.001	54.904	73.054	-	-	-

(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)
Flyaway Cost																		
Recurring Cost																		
1.1.1) NSST Training Support ⁽³⁾	-	-	0.000	-	-	0.600	-	-	0.600	-	-	-	-	-	-	-	-	-
1.1.2) AEGIS Ashore Trainer/C4I/5.0CU/ Tech Refresh ⁽⁴⁾	-	-	0.000	-	-	2.800	-	-	-	-	-	-	-	-	-	-	-	-
1.1.3) Combined IAMD/ASW Trainer (CIAT) ⁽⁵⁾	-	-	0.000	-	-	8.400	-	-	17.561	-	-	-	-	-	-	-	-	-
1.1.4) Navy Training System Plan (NTSP TTE/TD Mods) ⁽⁶⁾	-	-	0.000	-	-	23.300	-	-	25.300	-	-	-	-	-	-	-	-	-
1.1.5) Navy Integrated Fire Control-Counter Air (NIFC-CA) Trainer ⁽⁷⁾	-	-	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1.1.6) CSCS Modernization/Aegis Capability Build (ACB) Training Systems ⁽⁸⁾	-	-	0.000	-	-	6.000	-	-	5.000	-	-	-	-	-	-	-	-	-
1.1.7) Technical Training Equipment Modifications ⁽⁹⁾	-	-	0.000	-	-	-	-	-	0.713	-	-	-	-	-	-	-	-	-

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5662 / Training Device Mods	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]

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 (\$)	Qty (Each)	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)
1.1.8) Navigation Training Continuum (10)	-	-	0.000	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
1.1.9) (EPAA) Aegis Ballistic Missile Defense (BMD) Ashore Team Trainer (11)	-	-	0.000	-	-	-	-	-	2.400	-	-	-	-	-	-	-	-	-
1.1.10) Multi-Purpose Supporting Arms Trainer (MSAT) (12)	-	-	0.000	-	-	-	-	-	2.550	-	-	-	-	-	-	-	-	-
1.1.11) LHA 6 and LHD 8 Life Cycle Training (13)	-	-	0.000	-	-	-	-	-	1.600	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.001	-	-	41.100	-	-	56.324	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	0.001	-	-	41.100	-	-	56.324	-	-	-	-	-	-	-	-	-
Hardware - Trainers Cost Cost																		
Recurring Cost																		
2.1.1) SURFACE MINOR MODS (14)	-	-	0.000	-	-	9.638	-	-	15.730	-	-	-	-	-	-	-	-	-
2.1.2) FFT/SLEP/ MODULAR TRAINER (15)	-	-	0.000	-	-	3.200	-	-	0.500	-	-	-	-	-	-	-	-	-
2.1.3) FCA TRAINERS (16)	-	-	0.000	-	-	0.966	-	-	0.500	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	13.804	-	-	16.730	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware - Trainers Cost Cost</i>	-	-	0.000	-	-	13.804	-	-	16.730	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost	-	-	0.001	-	-	54.904	-	-	73.054	-	-	-	-	-	-	-	-	-

Remarks:

Beginning in FY17, funding referenced in project unit TS004 is being budgeted/executed in BLI 5664.

Footnotes:

⁽³⁾ NAVIGATION TRAINING SUPPORT - Funds are provided for modifications/upgrades to Navigation Shore Based Trainers

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5662 / Training Device Mods	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>(4) AEGIS ASHORE TRAINER/C4I/5.0CU/Tech Refresh -Funds modernization, delivery, installation and life-cycle maintenance support of a high fidelity Aegis Ashore Team Trainer in support of the land-based Aegis Ashore Training Continuum. Funds also provide for the integration of a C4I component, 5.0 Capability Upgrade (CU) and tech refresh.</p> <p>(5) COMBINED IAMD/ASW TRAINER (CIAT) -Funds are provided to procure and install hardware for a Shore Based IAMD and ASW Trainer. The increase in costs in FY16 and continuing through the FYDP are required to fund tactical and other software licensing (all baselines), Information Assurance and routine software and hardware modifications of all seven CIAT systems and ensures alignment with DON CIO Cyber requirements and tactical ship modernization. Additionally, procuring and maintaining high fidelity training devices at Fleet Concentration Areas and Navy schoolhouses for operators is less cost than the traditional procuring of lower fidelity ship embedded training systems.</p> <p>(6) NAVY TRAINING SYSTEM PLAN (NTSP Technical Training Equipment (TTE)/Training Device (TD) Mods) - Funds are provided for the procurement and installation of training equipment and associated logistic support package as outlined in the NTSPs. The increase in costs in FY 16 and continuing through the FYDP are required to procure and install Training Equipment, develop curriculum and modernize classrooms for several critical HM&E systems including Compressed Air, Cargo Weapons Elevators, Damage Control, and Governors. Failure to update these courses will decrease sailors ability to operate and maintain these systems and will negatively impact Fleet readiness.</p> <p>(7) NIFC-CA Trainer - Funds are for the procurement and integration of models to allow for NIFC-CA and Engage on Remote training at ATRC Labs.</p> <p>(8) Center for Surface Combat Systems (CSCS) Modernization/Aegis Capability Build (ACB) Training Systems - Funds are provided for upgrades to current CSCS and ATRC training systems to eliminate reliance on outdated and maintenance-intensive technical training equipment. Procure and install equipment which will allow for training on Aegis ACB 16 and install simulation/stimulation to be used in training systems for ATRC and CSCS Aegis curriculum.</p> <p>(9) Technical Training Equipment Modifications - Funds procure Hull Mechanical and Electrical (HM&E), and Combat Systems (CS) technical training equipment (TTE) for the training activities. Provides equipment to augment existing TTE due to increased student throughput, replaces equipment beyond economical repair and procures new equipment.</p> <p>(10) Navigation Training Continuum - Funds provide for implementation of formal navigation continuum training courses of instruction for enlisted Quartermasters for enlisted navigation (non-maintenance) watch standers and updates the Officer Navigation Training Continuum and improve waterfront navigation operator training to meet mandated requirements in the Surface Navigation System Navy Training Systems Plan. Funds provide for curriculum materials and training equipment.</p> <p>(11) European Phased Adaptive Approach (EPAA) Aegis Ballistic Missile Defense (BMD) Ashore Team Trainer - Funds the training facility to train Navy Sailors who will man EPAA land-based BMD facilities in Poland and Romania. The Aegis Ashore Team Trainer (AATT) at Dam Neck, VA will serve as the single site for individual watch team tactical training, certification events and sustainment training for Aegis Ashore rotational crews assigned to AA BMD Host Nation Sites.</p> <p>(12) Multi-Purpose Supporting Arms Trainer (MSAT)- Funds for trainer system upgrades for 3 MSATs to include functionality upgrades to incorporate new equipment/ hardware and procedural changes to maintain training system annual certification requirements.</p> <p>(13) LHA 6 and LHD 8 Life Cycle Training - This line procures maintainer/operator training equipment and software applications for LHA-6/LHD-8 engineering systems in support of multiple courses of instruction at SWOS Learning Center Great Lakes, Norfolk, and San Diego, as required by several Navy Training System Plans (NTSPs).</p> <p>(14) SURFACE MINOR MODS - Modifications are required to meet safety standards, keep training systems compatible with equivalent changes made to fleet operational equipment, and to enhance training capabilities. These modifications support the 300+ fielded Surface training systems.</p> <p>(15) FFT/SLEP/MODULAR TRAINER-Funds are provided for the Service Life Extension Program (SLEP) Firefighter Trainer (FFT).</p> <p>(16) FCA TRAINERS - Funds are provided for upgrades to shore based trainers (Combat System, HM&E) in Fleet Concentration Areas.</p>		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5662 / Training Device Mods				Modification Number / Title: 1 / TD009 SMMTT PH3 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>)	0.000	3.435	10.678	-	-	-	-	-	-	-	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	3.435	10.678	-	-	-	-	-	-	-	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	3.435	10.678	-	-	-	-	-	-	-	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:

SMMTT upgrades to hardware and simulation to match current Fleet configurations.

[SMMTT PH3 MODS] TD009: SMMTT PH3 MODS

The increase in costs in FY16 is directly correlated to the kits receiving additional Trainer Enhancement requirements directed by the TYCOM. The requirements include, but are not limited to Low Cost Conformal Array (LCCA) updates, All World Environmental Simulator (AWESIM) tech refresh, and Periscope Simulators (PSIM). Also included are the Uninterrupted Power Supply American Power Conversion(UPS/APC) procurements, system procurements of Touchscreens displays across various sites, and updates to the Torpedo Relevancy Model(TRM).

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Exhibit P-3a, Individual Modification: PB 2017 Navy										Date: February 2016			
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5662 / Training Device Mods						Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS			
Models of Systems Affected: SMMTT PH3 MODIFICATIONS				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: TD009 SMMTT PH3 MODIFICATIONS</i>													
B Kits													
Recurring													
1.1.1) SMMTT PH3 MODS - NonOrganic ⁽¹⁷⁾	8 / 0.000	1 / 2.676	2 / 9.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Recurring</i>	- / 0.000	- / 2.676	- / 9.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: TD009 SMMTT PH3 MODIFICATIONS</i>	8 / 0.000	1 / 2.676	2 / 9.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / 2.676	- / 9.927	- / -	- / -	- / -	- / -	- / -	- / -	- / -	Continuing	Continuing	
Installation													
<i>Modification Item 1 of 1: TD009 SMMTT PH3 MODIFICATIONS</i>													
	- / 0.000	- / 0.759	- / 0.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.510	
<i>Subtotal: Installation</i>	- / 0.000	- / 0.759	- / 0.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 1.510	
Total													
Total Cost (Procurement + Support + Installation)	0.000	3.435	10.678	-	-	-	-	-	-	-	Continuing	Continuing	

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5662 / Training Device Mods	Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS

Modification Item 1 of 1: TD009 SMMTT PH3 MODIFICATIONS

Manufacturer Information

Manufacturer Name: NSWC CD/NUWC NPT ⁽¹⁸⁾				Manufacturer Location: BETHESDA, MD/ NEWPORT, RI			
Administrative Leadtime (in Months): 6				Production Leadtime (in Months): 17			
Dates	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Contract Dates	Jan 2015	Jan 2016					
Delivery Dates	May 2016	May 2017					

Installation Information

Method of Implementation: AIT:: Installation Name: SMMTT PH3 MODS

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 / 0.000	4 / 0.759	2 / 0.375	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / 0.000	8 / 1.134
FY 2015	- / -	- / -	1 / 0.376	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	1 / 0.376
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	2 / 0.000	4 / 0.759	3 / 0.751	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	9 / 1.510

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	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Out	2	-	-	2	2	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9

Footnotes:

⁽¹⁷⁾ Production lead time increased from an average of 11 months to 17 months due to an increase in Tactical TI/APB scheduled deliveries to the fleet and Engineering Production Model. In FY16, the installation cost for 1 kit increases due to equipment installation in the training facility in GUAM. This will require a ripout of existing equipment and modifications to the HVAC (Heating/Ventilation/Air Conditioning) to accomodate the SMMTT install. In addition, an increase in shipping cost to GUAM will occur.

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5662 / Training Device Mods	Modification Number / Title: 1 / TD009 SMMTT PH3 MODIFICATIONS

⁽¹⁸⁾ NSWC CD & NUWC NPT are collaborating warfare centers that manage and execute the SMMTT as directed by NAVSEA. Both warfare centers function as a prime for this effort. However, for cost efficiency purposes, they compete their cognizant tasks among multiple vendors with multiple orders to provide equipment/software in a timely manner to meet the fleet required training dates. As such, the SMMTT delivery is not linked to any single contract 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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance	P-1 Line Item Number / Title: 5664 / Surface Training 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>)	0.000	-	-	97.514	-	97.514	64.802	85.086	78.205	60.945	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	97.514	-	97.514	64.802	85.086	78.205	60.945	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	97.514	-	97.514	64.802	85.086	78.205	60.945	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:

Note: Efforts within this budget line were consolidated from LI's 1320, 2762, and 5662 in FY16 and prior.

This line provides funds to procure, modify, and upgrade training devices to keep them compatible with equivalent changes made to Fleet operational equipment. Funds ensure alignment between Surface Learning Centers and Fleet Concentration Area training systems and fleet training requirements as dictated by the Surface and Expeditionary Warfare Training Plan.

[P40A / (H5374) LCS SEAFRAME SIMULATORS]: Funds procure Littoral Combat Ship (LCS) training simulators and equipment for the respective LCS homeports and the Surface Warfare Officer School (SWOS) in Newport, Rhode Island. Simulators are needed to meet the Train to Qualify Train to Certify (T2Q/T2C) Key Performance Parameter (KPP) requirement of the Capabilities Development Document. Funding procures hardware and software associated with building the trainers and the installation of this hardware and software at the LCS Training Facilities (LTF) in each homeport and at SWOS. Trainers are required for each ship variant, with initial procurements for the San Diego homeport and SWOS, followed by procurements for the Mayport and Norfolk homeports within the FYDP. Throughput of LCS crews requires more than one simulator of each variant in a homeport.

1.1) LCS Virtual Ship Training System (VSTS) - Comprehensive network infrastructure and computing environment and Virtual Reality Labs (VRLs), within the LCS Training Facilities (LTF) to support delivery and management of all components of LCS Training. Without the VSTS network infrastructure, no systems within the LTF (currently being built in San Diego, and funded for Mayport) will interoperate or communicate with each other. Both LTFs are being built and designed around a central computer server farm that houses all courseware, training scenarios, and student records. Without the network infrastructure, there is no way to distribute the required courseware and software around the LTF, making the building essentially unusable. Without the VRLs, there is no method of presenting previously developed Immersive Virtual Ship Environment (IVSE) courseware to students. Modernization efforts include regular/scheduled updates/upgrades to VSTS and include procurement of new servers, relays, and switches, along with the procurement of replacement Virtual Reality Lab (electronic classroom) equipment.

1.2) LCS Mission Bay Trainers - Enable the qualification, training, and team certification of the individuals and teams working in the Mission Bay. Scenarios include prepping and launching/recovering of mission module off-hull remote vehicles and operating of the cranes, doors, and other associated equipment in the Mission Bay. They include full-scale replicas of the Mission Bay for both variants. Without the Mission Bay Trainer, there will be no homeport training in the Mission Bay operations for the San Diego or Mayport-based crews and detachments during training pipeline, or off-hull, rapid refresh crew team training, and the primary warfare area (the Mission Bay) for the LCS ships will have no shore-based, controlled training capability in San Diego and Mayport, in this high-risk area of Mission Bay operations.

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5664 / Surface 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>1.3) LCS 1 and LCS 2 Integrated Tactical Trainers (ITT)- These are full scale simulators and/or stimulations of Tactical Software enabling integrated team training of Bridge, Combat Systems, Engineering, and Mission Package systems/watch stations. The quantity and type (based on variant) of trainers in San Diego and Mayport is dependent on the Navy's Strategic Laydown of the Littoral Combat Ships. Follow on ITT procurements (FY16 and follow) will include integrated crew served weapon simulators (discussed below). If the ITTs are not funded, there is no way for the LCS crews and detachments to train in-port, as the LCS ships do not have an onboard training system. Without the shore-based trainers, the ships must get underway, and use real targets and Fleet assets, such as drones, and training aircraft for all of their training. The LCS Concept of Operations does not support such at-sea intensive training requirements. Modernization efforts include regular/scheduled updates and upgrades to the ITTs and include procurement of new servers, relays, and switches, as well as new consoles, joy sticks and communication equipment.</p> <p>1.4 & 1.5) Bridge Trainers - Devices that permit selected aspects of Bridge tasks (including Readiness Control Officer [RCO] tasks) to be practiced independently of Combat Systems Operations as found in more capable ITTs. This facilitates more efficient accomplishment of T2Q and T2C objectives. This trainer supports Officer training pipeline at SWOS, Newport in support of Division Officer, Department Head, and PXO/PCO training pipeline for Officer of the Deck Training and rapid refresh and skills enhancement in Mayport.</p> <p>1.6) Crew Served Weapons Simulators - Funds support tactical deployment of small arms weapons stations topside. Crew Served weapons simulators will be integrated into procurement of follow-on ITTs. Without these simulators installed and integrated with the Integrated Tactical Trainers, the crew's tactical teams have no way to exercise ashore their Surface Warfare Detect-to-Engage sequence. The LCS ships are built to operate close to land. Proper execution and employment of their small arms (.50 Cal) are critical to the safety of the ship, and her crew.</p> <p>1.7) LCS 1 and LCS 2 Combat Systems Part Task Trainers (C2 PTT). These devices permit training in selected aspects of Combat Systems Operations that are found in the more capable ITTs, to support individual skills development and practice, reduce the wear and tear on the ITTs, and allow the ITTs to more efficiently accommodate team training and certifications.</p> <p>[P40A / MB040 - BFTT SHIP SETS]: Note: FY16 Procurements are installed in FY17.</p> <p>[P40A / CVN 78 Class Training Equipment]: This provides for several initiatives oriented to developing the formal life cycle training solutions for multiple mission critical CVN 78 contractor furnished equipment (CFE) systems. Funds procure CVN 78 Class training simulators and equipment for the applicable Navy Education and Training Command Centers of Excellence. In particular, the CFE items procured include: training simulators, ship system mock-ups, electronic classrooms, intelligent tutoring systems, and all engineering and facilities upgrades necessary for installation at the training facilities. Simulators are needed to meet warfighter mission and safety readiness requirements of the Naval Aviation Carrier Training Manual. Funding procures hardware and software associated with building the trainers' hardware and software for future installation at the applicable Centers of Excellence in Norfolk, Great Lakes, and at SWOS Newport. Trainers are required for each major new CVN 78 specific system, with initial procurements for the Norfolk homeport and SWOS, followed by procurements for the Great Lakes training center and the homeport of San Diego. This funding represents initial training systems procurement for Advanced Weapons Elevator (AWE), Machinery Control and Monitoring System (MCMS), valve actuators, Solid State Voltage & Frequency Converter (SSVFC), Aqueous Film Forming Foam (AFFF) System, video network, Voice Telephone System (VTS), Zonal Electrical Distribution System (ZEDS), Oxygen (O2) Systems, Plasma Arc Waste Destruction System (PAWDS), Steering Gear Control System (SGCS). Additionally, this funding supports all associated site preparations and installation costs for the procured training systems. The Formal Life Cycle Training program provides training delivery for effective warfighter skills required for safe operations and maintenance of the ship.</p> <p>[P5 / TS004 Surface Training Device Mods]: This line provides funds to procure, modify and upgrade trainers to include Aegis Weapon Systems, Aegis Ashore, Littoral Combat Ship (LCS), DDG 1000, Ship Self Defense System (SSDS), and other Surface Warfare related Training Programs; Navigation, Hull, Mechanical and Electrical (HM&E), combat systems, engineering, damage control and amphibious warfare individual and team Technical Training Equipment, Training Devices, Training Unique Equipment and Training systems. Funds ensure alignment between Surface Learning Centers and Fleet Concentration Area training systems and fleet training requirements as dictated by the Surface and Expeditionary Warfare Training Plan (SEWTP). Additionally, funds support ship on-board training curriculum for the purpose of maintaining perishable operator and maintenance skills.</p> <p>[P5 / AEGIS Ashore Trainer/C4I/Tech Refresh]: AEGIS ASHORE TRAINER/C4I/Tech Refresh -Funds modernization, delivery, installation and life-cycle maintenance support of a high fidelity Aegis Ashore Team Trainer in support of the land-based Aegis Ashore Training Continuum. Funds also provide for the integration of a C4I component, BMD Upgrades, and tech refresh. Also funds the training system to train Navy Sailors who will man European Phased Adaptive Approach (EPAA) land-based BMD facilities in Poland and Romania. The Aegis Ashore Team Trainer (AATT) at Dam Neck, VA will serve as the single site for individual watch team tactical training, certification events, and sustainment training for Aegis Ashore rotational crews assigned to AA BMD Host Nation 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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5664 / Surface 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>[P5 / Combined IAMD/ASW Trainer (CIAT)]: Combined Integrated Air and Missile Defense (IAMD)/Anti-submarine Warfare (ASW) Trainer (CIAT): From the Aegis Weapon System/SPY Radar Readiness Task Force, Chief of Naval Operations (OPNAV) sponsored Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Naval Integrated Fire Control-Counter Air (NIFC-CA), and C5I training requirements documents, one of the areas identified for long term investment was the requirement for a high fidelity integrated air and missile defense and anti-submarine warfare training capability. Due to the cost prohibitive realities associated with modifying onboard high fidelity training systems, which currently meet only 60% of the CNO requirement for ship training systems to be commensurate with tactical system capability, this shore-based, high fidelity trainer is being procured. The CIAT will field in the Fleet Concentration Areas of San Diego and Norfolk in support of program of record Advanced Warfare Training (AWT). The effort began in FY 14 and supports procurement and installation of two systems across the FYDP. Installations will occur in San Diego and Norfolk. Funds also include costs associated with tactical and other software licensing, Information Assurance, computer program corrections and sustainment to ensure alignment with DON CIO Cyber requirements and ship tactical modernization.</p> <p>[P5 / Navy Training System Plan (NTSP TTE/TD Mods)]: Funds 6 surface and expeditionary training systems in multiple school houses in accordance with the results of CNO directed and OPNAV and Fleet sponsored studies, NTSP updates, and Technical Training Audits from 2011 through 2016. One of the key items identified in the Fleet Review Panel of Surface Force Readiness, LPD 17 Class Wholeness Task Force, (Mine Countermeasures (MCM) Readiness Task Force, Navigation Wholeness Study, Chief of Naval Operations (OPNAV)-sponsored Surface Engineering Training Wholeness Review, Littoral Combat Ship (LCS) Front End Analysis (FEA), DDG 1000 wholeness review, and LHD 8/ LHA 6 MPT analyses done by the Surface Warfare Enterprise was the outdated or lack of training equipment in the schoolhouses. Based on this analysis, funding supports requirements identified in approximately 80 Navy Training System Plan updates and 87 Technical Training Course Audits. This investment will be for the procurement and installation of Training Equipment at Learning Centers to keep training courses in alignment with current configuration of equipment in the fleet. Investment ensures Surface Warfare Training Continuums are capable of meeting training requirements directly supporting readiness for the following systems/courses:</p> <ol style="list-style-type: none"> 1. Countermeasure Wash-down System 2. A-652-0500 Shipboard Gauge Operator 3. Prairie Masker 4. Shipboard Laundry/Dry cleaning 5. Galley/Scullery 6. A-495-0035 HT 'A' School <p>[P5 / CSCS Modernization/Aegis Capability Build (ACB) Training Systems]: The Aegis Weapon System/SPY Radar Readiness Task Force, OPNAV-sponsored Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Aegis Ashore, Naval Integrated Fire Control-Counter Air (NIFC-CA) and C5I training requirements document that there is training shortfall for procurement and installation of ACB Technical Training Equipment (TTE) Simulation/Stimulation at the Aegis Training and Readiness Center (ATRC) Learning Site. The current ATRC training systems utilize expensive and maintenance-intensive ruggedized shipboard equipment which is obsolete and unsupportable. Without this funding, existing training labs at ATRC will not be upgraded or maintained to provide accurate training and the required training lab for ACB Program of Record will not be completed. Aegis operators and maintainers will not be trained on accurate systems which will directly impact fleet readiness.</p> <p>[P5 / Technical Training Equipment Modifications]: Funds procure schoolhouse modifications of end items in support of fleet training requirements including Hull Mechanical and Electrical (HM&E), and Combat Systems (CS) technical training equipment (TTE) for the training activities. Provides equipment to augment existing TTE due to increased student throughput, replaces equipment beyond economical repair and procures new equipment.</p> <p>[P5 / Navigation Training Continuum]: Funds provide for implementation of formal navigation continuum training courses of instruction for enlisted Quartermasters, for enlisted navigation (non-maintenance) watch standers, and updates the Officer Navigation Training Continuum and improves waterfront navigation operator training to meet mandated requirements in the Surface Navigation System Navy Training Systems Plan. Funds provide for curriculum materials and training equipment.</p> <p>[P5 / Multi-Purpose Supporting Arms Trainer (MSAT)]: Funds for trainer system upgrades for MSATs to include functionality upgrades to incorporate new equipment/ hardware and procedural changes to maintain training system annual certification requirements.</p> <p>[P5 / LHA 6 and LHD 8 Life Cycle Training]: This line procures maintainer/operator training equipment and software applications for LHA-6/LHD-8 engineering systems in support of multiple courses of instruction at SWOS Learning Center Great Lakes, Norfolk, and San Diego, as required by several Navy Training System Plans (NTSPs).</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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5664 / Surface 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	

[P5 / SURFACE MINOR MODS]: Funds modernization for training systems and sustainment for over 100 surface and expeditionary training systems in accordance with the results of CNO directed and OPNAV and Fleet sponsored studies from 2009 through 2013. Specific studies of surface training systems include: Fleet Review Panel of Surface Force Readiness, Aegis Weapon System/SPY Radar Readiness Task Force, LPD 17 Class Wholeness Task Force, Mine Countermeasures (MCM) Readiness Task Force, Navigation Wholeness Study, OPNAV-sponsored Surface Engineering Training Wholeness Review, Fleet Integrated Air and Missile Defense and Anti-Submarine Warfare Improvement Programs, Aegis Ashore, Naval Integrated Fire Control-Counter Air (NIFC-CA) and C5I training requirements documents, Littoral Combat Ship (LCS) Front End Analysis (FEA), DDG 1000 wholeness review, LHD 8/ LHA 6 Training Requirements Planning and Programming (TRPPM), Commander Naval Surface Forces (CNSF) manpower initiatives impact on readiness, and the Navy Inspector General (IG) report on Computer Based Training (CBT). The extensive inventory of training systems to support 16 classes of ships requires continual modernization and modification to ensure alignment with fleet systems while addressing technology obsolescence issues. Increased funding is budgeted to modernize the following systems:

1. Damage Control Wet Trainers Upgrades/Refresh
2. DDG 51 Machinery Control System Maintenance Trainer
3. Multi-Mission Team Trainer Upgrades/Lab Refresh
4. Electrical Maintenance Training
5. Air Conditioning and Refrigeration (AC&R) Maintenance Training
6. Deck System Equipment Training
7. Marine Sanitation Devices
8. LCAC Team Trainer Overhaul/Upgrades
9. Firefighting Team Trainers Upgrades/Refresh
10. Advanced Electronic Attach (EA)
11. Anti-Submarine Warfare (ASW) Weapons Tactics Instructors (WTI)
12. Elevator Systems
13. Steam Maintenance Training

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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 04: Ordnance Support Equipment / BSA 7: Other Expendable Ordnance		P-1 Line Item Number / Title: 5664 / Surface 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
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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	Other Ships Training Equipment			- / 0.000	- / -	- / -	- / 29.166	- / -	- / 29.166
P-5	1 / TS004 Surface Training Device Mods [TS004]			- / 0.000	- / -	- / -	- / 47.493	- / -	- / 47.493
P-3a	1 / MB040 - BFTT SHIP SETS (TBD)			- / 0.000	- / -	- / -	- / 14.235	- / -	- / 14.235
P-3a	2 / MB040 BFTT UPGRADE KITS (TBD)			- / 0.000	- / -	- / -	- / 6.620	- / -	- / 6.620
P-40	Total Gross/Weapon System Cost			- / 0.000	- / -	- / -	- / 97.514	- / -	- / 97.514

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 Ships Training Equipment			- / -	- / -	- / -	- / -	- / -	- / -
P-5	1 / TS004 Surface Training Device Mods [TS004]			- / -	- / -	- / -	- / -	- / -	- / -
P-3a	1 / MB040 - BFTT SHIP SETS (TBD)			- / 20.595	- / 19.906	- / 18.585	- / 18.050	Continuing	Continuing
P-3a	2 / MB040 BFTT UPGRADE KITS (TBD)			- / 9.661	- / 8.217	- / 10.006	- / 11.055	- / -	- / 45.559
P-40	Total Gross/Weapon System Cost			- / 64.802	- / 85.086	- / 78.205	- / 60.945	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:
 FY 2017 decrease in Surface Training Equipment OPN by \$4.081M as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015.

 The FY 2017 funding request was also reduced by \$1.221M to account for the availability of prior year execution balances.

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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 / 04 / 7 **P-1 Line Item Number / Title:** 5664 / Surface Training Equipment **Aggregated Items Title:** Other Ships 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) (H5374) LCS SEAFRAME SIMULATORS																				
1.1) LCS Virtual Ship Training System	A		-	-	-	-	-	-	-	-	-	-	-	4.641	-	-	-	-	-	4.641
1.2) LCS Mission Bay Trainers	A		-	-	-	-	-	-	-	-	-	-	-	7.728	-	-	-	-	-	7.728
1.4) Bridge Trainer (SWOS)	A		-	-	-	-	-	-	-	-	-	-	-	4.278	-	-	-	-	-	4.278
1.5) Bridge Trainer (Mayport)	A		-	-	-	-	-	-	-	-	-	-	-	2.139	-	-	-	-	-	2.139
1.6) Crew Served Weapons Simulators	A		-	-	-	-	-	-	-	-	-	-	-	0.350	-	-	-	-	-	0.350
Subtotal: 1) (H5374) LCS SEAFRAME SIMULATORS			-	-	0.000	-	-	-	-	-	-	-	-	19.136	-	-	-	-	-	19.136
2) MB040 - BFTT SHIP SETS																				
2.1) MB040 - BFTT SHIP SETS ⁽¹⁾	A		-	-	-	-	-	-	-	-	-	481,545.45	11	5.297	-	-	-	481,545.45	11	5.297
Subtotal: 2) MB040 - BFTT SHIP SETS			-	-	0.000	-	-	-	-	-	-	-	-	5.297	-	-	-	-	-	5.297
3) CVN 78 Class Training Equipment																				
3.1) CVN 78 Class Training Equipment	A		-	-	-	-	-	-	-	-	-	-	-	4.733	-	-	-	-	-	4.733
Subtotal: 3) CVN 78 Class Training Equipment			-	-	0.000	-	-	-	-	-	-	-	-	4.733	-	-	-	-	-	4.733
Total			-	-	0.000	-	-	-	-	-	-	-	-	29.166	-	-	-	-	-	29.166

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

Footnotes:

⁽¹⁾ FY17 quantities represent installations associated with procurements made in FY16 under BLI 2762.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface Training Equipment	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]

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	-	-	47.493	-	47.493
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P-1) (\$ in Millions)	0.000	-	-	47.493	-	47.493
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Total Obligation Authority (\$ in Millions)	0.000	-	-	47.493	-	47.493

(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)
Flyaway Cost																		
Recurring Cost																		
1.1.1) NSST Training Support ⁽²⁾	-	-	0.000	-	-	-	-	-	-	-	-	1.700	-	-	-	-	-	1.700
1.1.2) AEGIS Ashore Trainer/C4I/Tech Refresh ⁽³⁾	-	-	0.000	-	-	-	-	-	-	-	-	10.900	-	-	-	-	-	10.900
1.1.3) Combined IAMD/ASW Trainer (CIAT) ⁽⁴⁾	-	-	0.000	-	-	-	-	-	-	-	-	16.160	-	-	-	-	-	16.160
1.1.4) Navy Training System Plan (NTSP TTE/TD Mods) ⁽⁵⁾	-	-	0.000	-	-	-	-	-	-	-	-	7.042	-	-	-	-	-	7.042
1.1.5) CSCS Modernization/Aegis Capability Build (ACB) Training Systems ⁽⁶⁾	-	-	0.000	-	-	-	-	-	-	-	-	1.000	-	-	-	-	-	1.000
1.1.6) Technical Training Equipment Modifications ⁽⁷⁾	-	-	0.000	-	-	-	-	-	-	-	-	0.730	-	-	-	-	-	0.730
1.1.9) LHA 6 and LHD 8 Life Cycle Training ⁽⁸⁾	-	-	0.000	-	-	-	-	-	-	-	-	3.600	-	-	-	-	-	3.600
Subtotal: Recurring Cost	-	-	0.000	-	-	-	-	-	-	-	-	41.132	-	-	-	-	-	41.132

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface Training Equipment	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]

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 (\$)	Qty (Each)	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: Flyaway Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	41.132	-	-	-	-	-	41.132
Hardware - Trainers Cost Cost																		
Recurring Cost																		
2.1.1) SURFACE MINOR MODS ⁽⁹⁾	-	-	0.000	-	-	-	-	-	-	-	-	4.061	-	-	-	-	-	4.061
2.1.2) FFT/SLEP/ MODULAR TRAINER ⁽¹⁰⁾	-	-	0.000	-	-	-	-	-	-	-	-	1.900	-	-	-	-	-	1.900
2.1.3) FCA TRAINERS ⁽¹¹⁾	-	-	0.000	-	-	-	-	-	-	-	-	0.400	-	-	-	-	-	0.400
<i>Subtotal: Recurring Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	6.361	-	-	-	-	-	6.361
<i>Subtotal: Hardware - Trainers Cost Cost</i>	-	-	0.000	-	-	-	-	-	-	-	-	6.361	-	-	-	-	-	6.361
Gross/Weapon System Cost	-	-	0.000	-	-	-	-	-	-	-	-	47.493	-	-	-	-	-	47.493

Footnotes:

- (2) NAVIGATION TRAINING SUPPORT - Funds are provided for modifications/upgrades to Navigation Shore Based Trainers. Increased funding in FY17 accounts for modifications/upgrades to an additional trainer location, as well as new IA requirements for Navigation, Seamanship, and Ship handling Training (NSST) systems. Increased requirement reflected in FY19 is in response to phased planning of hardware and software technology refreshes of 13 training systems in 9 fleet concentration areas that ensure training relevancy and capability for mandated Navigation, Seamanship and Shiphandling training remains intact.
- (3) AEGIS ASHORE TRAINER/C4I/Tech Refresh -Funds modernization, delivery, installation and life-cycle maintenance support of a high fidelity Aegis Ashore Team Trainer in support of the land-based Aegis Ashore Training Continuum. Funds also provide for the integration of a C4I component, BMD Upgrades, and tech refresh. Also funds the training facility to train Navy Sailors who will man EPAA land-based BMD facilities in Poland and Romania. The Aegis Ashore Team Trainer (AATT) at Dam Neck, VA will serve as the single site for individual watch team tactical training, certification events and sustainment training for Aegis Ashore rotational crews assigned to AA BMD Host Nation Sites. FY17 funds are provided to procure and install AATT BMD 5.1 and C4I upgrades.
- (4) COMBINED IAMD/ASW TRAINER (CIAT) -Funds are provided to procure and install hardware for a Shore Based IAMD and ASW Trainer. Funds are required across the FYDP for tactical and other software licensing (all baselines), Information Assurance and routine software and hardware modifications of two CIAT systems and ensures alignment with DON CIO Cyber requirements and tactical ship modernization. Additionally, procuring and maintaining high fidelity training devices at Fleet Concentration Areas and Navy schoolhouses for operators is less cost than the traditional procuring of lower fidelity ship embedded training systems.
- (5) NAVY TRAINING SYSTEM PLAN (NTSP Technical Training Equipment (TTE)/Training Device (TD) Mods) - Funds are provided for the procurement and installation of training equipment and associated logistic support package as outlined in the NTSPs. Failure to update these courses will decrease sailors ability to operate and maintain these systems and will negatively impact Fleet readiness.
- (6) Center for Surface Combat Systems (CSCS) Modernization/Aegis Capability Build (ACB) Training Systems - Funds are provided for upgrades to current CSCS and ATRC training systems to eliminate reliance on outdated and maintenance-intensive technical training equipment. Procure and install equipment which will allow for training on Aegis ACB 16 and install simulation/stimulation to be used in training systems for ATRC and CSCS Aegis curriculum.

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Exhibit P-5, Cost Analysis: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface Training Equipment	Item Number / Title [DODIC]: 1 / TS004 Surface Training Device Mods [TS004]
ID Code (A=Service Ready, B=Not Service Ready) :		MDAP/MAIS Code:
<p>⁽⁷⁾ Technical Training Equipment Modifications - Funds procure Hull Mechanical and Electrical (HM&E), and Combat Systems (CS) technical training equipment (TTE) for the training activities. Provides equipment to augment existing TTE due to increased student throughput, replaces equipment beyond economical repair and procures new equipment.</p> <p>⁽⁸⁾ LHA 6 and LHD 8 Life Cycle Training - This line procures maintainer/operator training equipment and software applications for LHA-6/LHD-8 engineering systems in support of multiple courses of instruction at SWOS Learning Center Great Lakes, Norfolk, and San Diego, as required by several Navy Training System Plans (NTSPs).</p> <p>⁽⁹⁾ SURFACE MINOR MODS - Modifications are required to meet safety standards, keep training systems compatible with equivalent changes made to fleet operational equipment, and to enhance training capabilities. These modifications support the 100+ fielded Surface training systems.</p> <p>⁽¹⁰⁾ FFT/SLEP/MODULAR TRAINER-Funds are provided for the Service Life Extension Program (SLEP) Firefighter Trainer (FFT). Increased funding in FY17 is required to accomplish all required SLEP tasking and to facilitate the upgrade of 19F4A Firefighter Trainer in Norfolk and San Diego to modern Programmable Logic Controller (PLC) architecture.</p> <p>⁽¹¹⁾ FCA TRAINERS - Funds are provided for upgrades to shore based trainers (Combat System, HM&E) in Fleet Concentration Areas.</p>		

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016				
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5664 / Surface Training Equipment			Modification Number / Title: 1 / MB040 - BFTT SHIP SETS				

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	-	-	14.235	-	14.235	20.595	19.906	18.585	18.050	Continuing	Continuing
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	14.235	-	14.235	20.595	19.906	18.585	18.050	Continuing	Continuing
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	14.235	-	14.235	20.595	19.906	18.585	18.050	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 Battle Force Tactical Training (BFTT)/Total Ship Training Capability (TSTC) family of systems provides 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. TSTC/BFTT uses a distributed architecture, integrating existing training systems, and uses Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) protocols. TSTC/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 Total Ship Training Capability (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 to deliver training that is commensurate with tactical capabilities. 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

FY17 - TSTC/BFTT Ship Set funding will procure (19) T46D's and subsequent variants of hardware and software Build 5.x series in support of AN/SQQ-89 upgrades, AEGIS Baseline 9 upgrades and SSDS upgrades. Installation funding supports installation of (11) BFTT AN/USQ-T46D Systems.

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

Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7 **P-1 Line Item Number / Title:** 5664 / Surface 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	- / -	- / -	- / -	19 / 14.235	- / -	19 / 14.235	11 / 11.000	17 / 14.351	10 / 10.000	13 / 13.000	Continuing	Continuing
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 14.235	- / -	- / 14.235	- / 11.000	- / 14.351	- / 10.000	- / 13.000	Continuing	Continuing
<i>Subtotal: MB040 - BFTT SHIP SETS</i>	- / -	- / -	- / -	19 / 14.235	- / -	19 / 14.235	11 / 11.000	17 / 14.351	10 / 10.000	13 / 13.000	Continuing	Continuing
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 14.235	- / -	- / 14.235	- / 11.000	- / 14.351	- / 10.000	- / 13.000	Continuing	Continuing
Installation												
<i>Modification Item 1 of 1:</i> MB040 - BFTT SHIP SETS	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.595	- / 5.555	- / 8.585	- / 5.050	- / 6.565	- / 35.350
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / -	- / -	- / -	- / 9.595	- / 5.555	- / 8.585	- / 5.050	- / 6.565	- / 35.350
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	14.235	-	14.235	20.595	19.906	18.585	18.050	Continuing	Continuing

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface 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 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates			Sep 2017	Sep 2018	Sep 2019	Sep 2020	Sep 2021

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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	- / -	- / -	- / -	19 / 9.595	- / -	- / -	- / -	- / -	19 / 9.595
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	- / -	11 / 5.555	- / -	- / -	- / -	11 / 5.555
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	17 / 8.585	- / -	- / -	17 / 8.585
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	10 / 5.050	- / -	10 / 5.050
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	13 / 6.565	13 / 6.565
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	- / -	- / -	- / -	19 / 9.595	11 / 5.555	17 / 8.585	10 / 5.050	13 / 6.565	70 / 35.350

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	5	7	5	1	3	4	3	4	5	4	4	2	3	3	2	13	70
Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	7	5	-	4	4	3	-	9	4	4	-	5	3	2	13	70

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Exhibit P-3a, Individual Modification: PB 2017 Navy							Date: February 2016					
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7				P-1 Line Item Number / Title: 5664 / Surface 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>)	0.000	-	-	6.620	-	6.620	9.661	8.217	10.006	11.055	-	45.559
Less PY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P-1) (<i>\$ in Millions</i>)	0.000	-	-	6.620	-	6.620	9.661	8.217	10.006	11.055	-	45.559
Plus CY Advance Procurement (<i>\$ in Millions</i>)	-	-	-	-	-	-	-	-	-	-	-	-
Total Obligation Authority (<i>\$ in Millions</i>)	0.000	-	-	6.620	-	6.620	9.661	8.217	10.006	11.055	-	45.559
<i>(The following Resource Summary rows are for 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:

BFTT/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, BEWT, TSTC, 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/TSTC/TSSS Hardware requirements. Upgrade Kits and interface upgrades implement Fleet prioritized warfighting training improvements to the TSTC/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 variable.

FY17 - Upgrade/Field Change Kit funding will procure and integrate various Battle Force Tactical Training (BFTT)/Total Ship Training Capability (TSTC) family of systems upgrades to include Battle Force Tactical Training Electronic Warfare Trainer (BEWT) Baseline II Hardware & Software upgrades, BFTT Software Baselines 3.5.1 & 5.0 upgrades, Naval Seamanship Ship handling Trainer and Training Simulation Stimulation System (TSSS) legacy radar interface upgrades. Upgrade BFTT/TSTC Shipboard Connectivity Suite through a Tech Refresh. Upgrade various TSTC related shore and ship based training systems. Installation funding supports installation and removal of various training system hardware/software upgrades (ECPs/Field Change (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 / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface Training Equipment	Modification Number / Title: 2 / MB040 BFTT UPGRADE KITS
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Models of Systems Affected: Battle Force Tactical Training Upgrade Kits	Modification Type: TBD	Related RDT&E PEs: 0204571N
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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> MB040 BFTT UPGRADE KITS												
B Kits												
Recurring												
1.1.1) BFTT UPGRADE KITS - NonOrganic	- / -	- / -	- / -	96 / 1.549	- / -	96 / 1.549	119 / 2.593	83 / 2.789	93 / 4.446	97 / 4.237	- / -	488 / 15.614
<i>Subtotal: Recurring</i>	- / 0.000	- / -	- / -	- / 1.549	- / -	- / 1.549	- / 2.593	- / 2.789	- / 4.446	- / 4.237	- / -	- / 15.614
<i>Subtotal: MB040 BFTT UPGRADE KITS</i>	- / -	- / -	- / -	96 / 1.549	- / -	96 / 1.549	119 / 2.593	83 / 2.789	93 / 4.446	97 / 4.237	- / -	488 / 15.614
<i>Subtotal: Procurement, All Modification Items</i>	- / 0.000	- / -	- / -	- / 1.549	- / -	- / 1.549	- / 2.593	- / 2.789	- / 4.446	- / 4.237	- / -	- / 15.614
Installation												
<i>Modification Item 1 of 1:</i> MB040 BFTT UPGRADE KITS												
<i>Subtotal: Installation</i>	- / 0.000	- / -	- / -	- / 15.071	- / -	- / 15.071	- / 7.068	- / 5.428	- / 5.560	- / 6.818	- / -	- / 29.945
Total												
Total Cost (Procurement + Support + Installation)	0.000	-	-	6.620	-	6.620	9.661	8.217	10.006	11.055	-	45.559

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Exhibit P-3a, Individual Modification: PB 2017 Navy		Date: February 2016
Appropriation / Budget Activity / Budget Sub Activity: 1810N / 04 / 7	P-1 Line Item Number / Title: 5664 / Surface Training Equipment	Modification Number / Title: 2 / MB040 BFTT UPGRADE KITS

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 2016	Dec 2017	Dec 2018	Dec 2019	Dec 2020
Delivery Dates			Mar 2017	Mar 2018	Mar 2019	Mar 2020	Mar 2021

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	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2015	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2016	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
FY 2017	- / -	- / -	- / -	96 / 5.071	- / -	96 / 5.071	- / -	- / -	- / -	- / -	- / -	96 / 5.071
FY 2018	- / -	- / -	- / -	- / -	- / -	- / -	119 / 7.068	- / -	- / -	- / -	- / -	119 / 7.068
FY 2019	- / -	- / -	- / -	- / -	- / -	- / -	- / -	83 / 5.428	- / -	- / -	- / -	83 / 5.428
FY 2020	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	93 / 5.560	- / -	- / -	93 / 5.560
FY 2021	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	97 / 6.818	- / -	97 / 6.818
To Complete	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -
Total	- / -	- / -	- / -	96 / 5.071	- / -	96 / 5.071	119 / 7.068	83 / 5.428	93 / 5.560	97 / 6.818	- / -	488 / 29.945

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	21	23	25	21	43	32	23	13	17	26	27	18	28	27	20	19	15	38	25	-	488
Out	-	-	-	-	-	-	-	-	-	27	21	23	25	21	43	32	23	13	17	26	27	18	28	27	20	19	15	38	25	-	488

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